

Vermont Food Rescue Toolkit

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Mission

Each semester, seniors in the Environmental Studies Program at Middlebury College participate in collaborative research projects relevant to the broader Vermont community. This spring, our focus was on food systems. Our team partnered with Pat Sagui of Composting Association of Vermont and Katy Davis of Hunger Free Vermont to tackle issues of food waste and food insecurity in Vermont. In response to Act 148, the Universal Recycling Law, which will ban the disposal of organic waste in landfills by 2020, we are providing a toolkit to help Vermont communities reduce and divert food waste in a socially and environmentally responsible way. This comprehensive toolkit explains how to redirect excess edible food to people in need of food.

Research Methods

To develop this toolkit, we conducted research from the global to local scale. We completed a literature review, researched existing tools and food rescue networks, and interviewed actors within Addison County to understand barriers and opportunities within our own local food system.

Audience

We intend for the toolkit to serve a wide range of audiences. The ideas we put forth are applicable to many communities and the variety of actors within them.

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Introduction

The United States wastes about 40% of the food that it produces. When we grow food without eating it, we squander large quantities of water, fertilizer, pesticides, fuel, labor and land.¹ Our country's mismanagement of food is not only an environmental problem, it is also socially irresponsible. One in seven Americans suffers from food insecurity, a household-level economic and social condition in which people lack access to enough food for an active and healthy life.² Rates of food insecurity in Vermont are consistent with national trends. In 2014, 13% of households in the state were considered food insecure.³ The state of hunger in our country is a deeply rooted problem connected to larger socioeconomic factors. Combatting the problem requires both bottom-up and top-down approaches.

Increasing the amount of available food is only a small part of the solution. With storage, processing, and distribution networks limited in capacity, more food does not directly translate to a decrease in food insecurity. One way to mitigate food insecurity at the community level is through food rescue, which redirects surplus food from the waste stream to people in need of food. Although businesses have been donating food to charitable organizations for ages, their work is often done in isolation from other efforts. Our goal is to coordinate donor networks and increase the overall capacity of communities to engage in food rescue.

In order to build upon existing networks, it is important to incorporate all the actors in a local food system. We piloted this approach by conducting a series of interviews in Addison County. Through these conversations, we identified obstacles to efficient food rescue and developed a wide range of recommendations to help communities overcome their challenges. We used our interviews as well as research on other food rescue efforts across the world to create this resource.

In the toolkit, we begin by explaining the importance of food rescue and its relevance to the Universal Recycling Law in Vermont. Next, we touch on common barriers to food rescue and follow up with a set of recommendations to mitigate these problems. We then outline the potential roles that actors within a local food system can play in food rescue efforts. After that, we provide information on the case studies we reviewed. The final component of our toolkit is an appendix full of resources that can be printed and distributed within a community to promote and support food rescue efforts.

¹ <https://www.nrdc.org/sites/default/files/wasted-food-IP.pdf>

² <http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security.aspx>

³ <http://www.hungerfreevt.org/learn/what-is-the-issue>

Why Now?

Overview of the Vermont Universal Recycling Law

The need for a food rescue toolkit in Vermont has always been present. However, the need has become more pressing in recent years due to the passing of Act 148, Vermont's Universal Recycling Law. Act 148 bans certain materials from landfill disposal and establishes infrastructure to recycle those banned materials. Edible food and food processing residuals are banned materials. As a result of Act 148, food scrap producers at every level, from individual households to institutional generators, will have to do something with their food scraps other than throwing them in the trash.⁴ Therefore, food donation is expected to greatly increase in popularity. Act 148 and food rescue efforts will become interdependent: food rescue organizations will depend on Act 148 to increase donations, and policymakers will depend on food rescue organizations to make Act 148 compliance as easy as possible for food scrap producers. Figure 1 shows what materials the average Vermonter put in the trash in 2013. If all recoverable materials were recycled, composted, or rescued, Vermont could cut its landfill waste by more than half.⁵

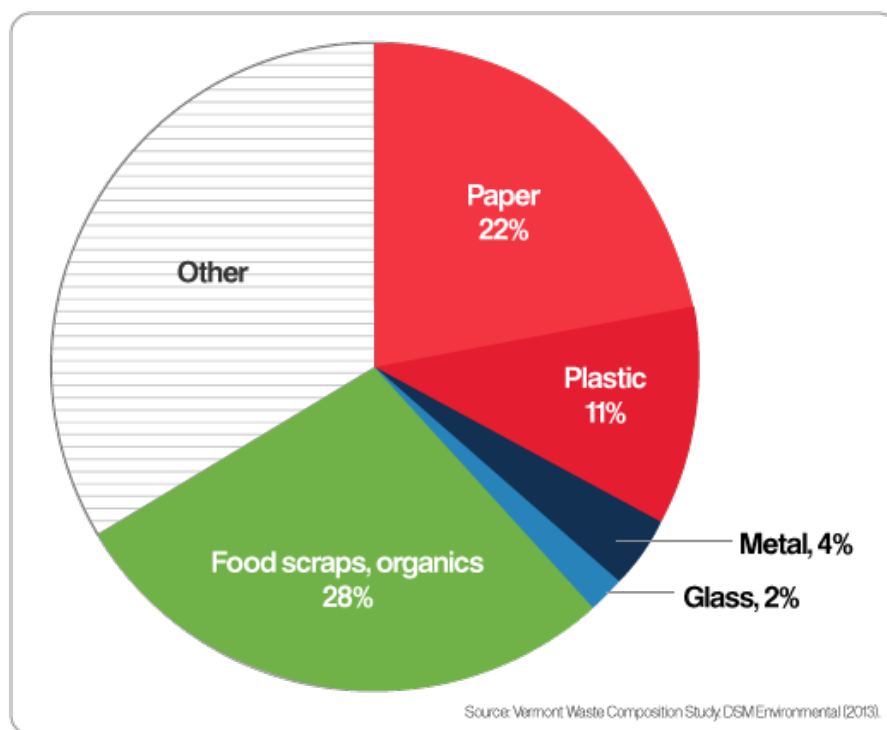


Figure 1. This chart, created by the Vermont Waste Composition study, shows the materials that the average Vermonter puts in the trash everyday (by weight).

⁴ <http://www.anr.state.vt.us/dec/wastediv/solid/act148.htm>

⁵ <http://dec.vermont.gov/waste-management/solid/universal-recycling>

Act 148 offers the Food Recovery Hierarchy as a model for understanding how to best make use of excess food. The general idea behind this model is to divert excess food in a way that most efficiently salvages its potential (Figure 2). Without the Food Rescue Hierarchy, many producers of excess food would likely have a single bin for compost or animal feed, downcycling this material because less sorting means less work and lower hauling costs. With the hierarchy incorporated into Act 148, further sorting is encouraged to increase the salvage of edible food from the waste stream.

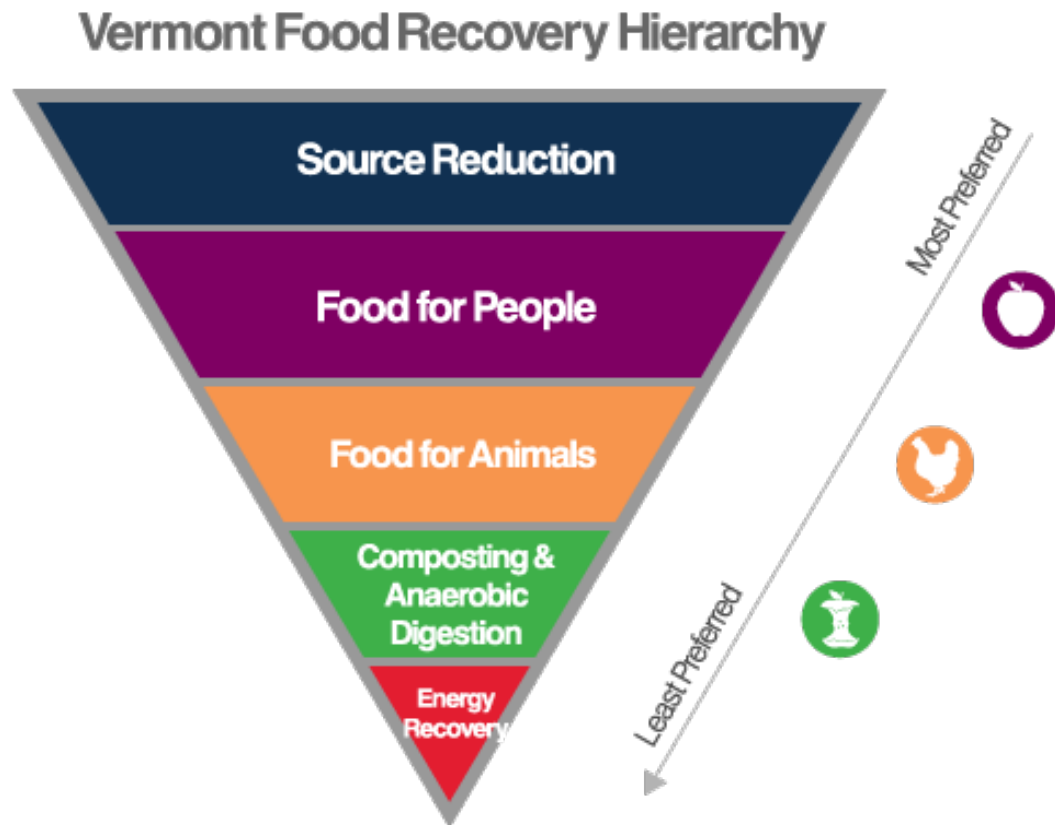


Figure 2. Vermont's Food Recovery Hierarchy.⁶

Note that in the hierarchy, waste avoidance is ranked higher than waste management. The scope of this assessment tool primarily involves the second tier, capturing excess food for use by people. However, engaging many actors in a food rescue network will also help producers of excess food identify and confront inefficiencies within their own operations that lead to food excess.

⁶ <http://dec.vermont.gov/waste-management/solid/universal-recycling>

Where Food Loss Occurs

From harvest to the dinner table, food gets wasted at all stages along the supply chain. It is important understand how each of these stages fit together to see the full picture of how food loss occurs. By breaking down where food loss occurs, you can identify the types of actors to target in your food rescue efforts (Table 1).

Table 1. Mechanisms of food loss at different stages in the food supply chain and actors that can address these losses through source reduction, regulations, disposal, and edible food loss interception.⁷

| Stage | Causes of Food Loss | Actors |
|---------------------|--|---|
| Harvest | Edible crops left in field Pests Poor technique Quality control | Source Reduction: Farmers Regulation: Farmers' associations State agricultural agencies Federal agricultural agencies Interception: Gleaning programs |
| Distribution | Expiration Bruising Improper handling Excess purchasing Quality control Damage during transport | Source Reduction: Distributors Interception: Food banks Food shelves |
| Storage | Pests Spillage Contamination Expiration Poor handling | Source Reduction: Institutional food service Large processors Cooperative producers Interception: Food banks Food shelves Community meal sites Shelters |

⁷ Adapted from Papargyropoulou, E., R. Lozano, J. K. Steinberger, N. Wright, and V. bin Ujang. 2014. "The food waste hierarchy as a framework for the management of food surplus and food waste." *Journal of Cleaner Production* 76: 106-115.

| Stage | Causes of Food Loss | Actors |
|---------------------------|---|--|
| Processing | Contamination Quality control Poor packaging | Source Reduction: Farms Institutional food service Large processors Cooperative producers Restaurants Caterers Career training centers Interception: Food banks Food shelves Community meal sites Shelters |
| Product Evaluation | Quality control | Source Reduction: Supermarkets Independent grocers Co-op markets Specialty retailers Institutional food service Restaurants Caterers Interception: Food banks Food shelves Community meal sites Shelters |
| Marketing | Improper handling Improper storage Damage during transport Quality control | Source Reduction: Supermarkets Independent grocers Co-op markets Specialty retailers Restaurants Interception: Food banks Food shelves Community meal sites Shelters |

| Stage | Causes of Food Loss | Actors |
|----------------------|---|--|
| Post-Consumer | Excess purchasing Uneaten food Confusion over date labeling Poor preparation technique | Source Reduction: Institutional food service State government agencies Disposal: Composters Waste haulers Interception: Food shelves Community meal sites Shelters |

Food loss also happens at different rates across the food system. Figures 3-8 demonstrate how much food loss occurs at different stages in the supply chain for a few types of products.⁸ Note that total loss for some types of food is more than half of what is produced (Figure 3)! Produce and seafood are especially susceptible to food loss during production as well as distribution and retail (Figures 4 and 6), and grain losses are higher than most other types of food loss during the processing stage (Figure 5). Handling and storage losses are already quite low (Figure 7), but the highest rates of food loss for all categories that were evaluated happens at the consumption stage (Figure 8).

⁸ Data are from the UNFAO and NRDC, and represent the U.S., Canada, Australia, and New Zealand. Adapted from <https://www.nrdc.org/sites/default/files/wasted-food-IP.pdf>

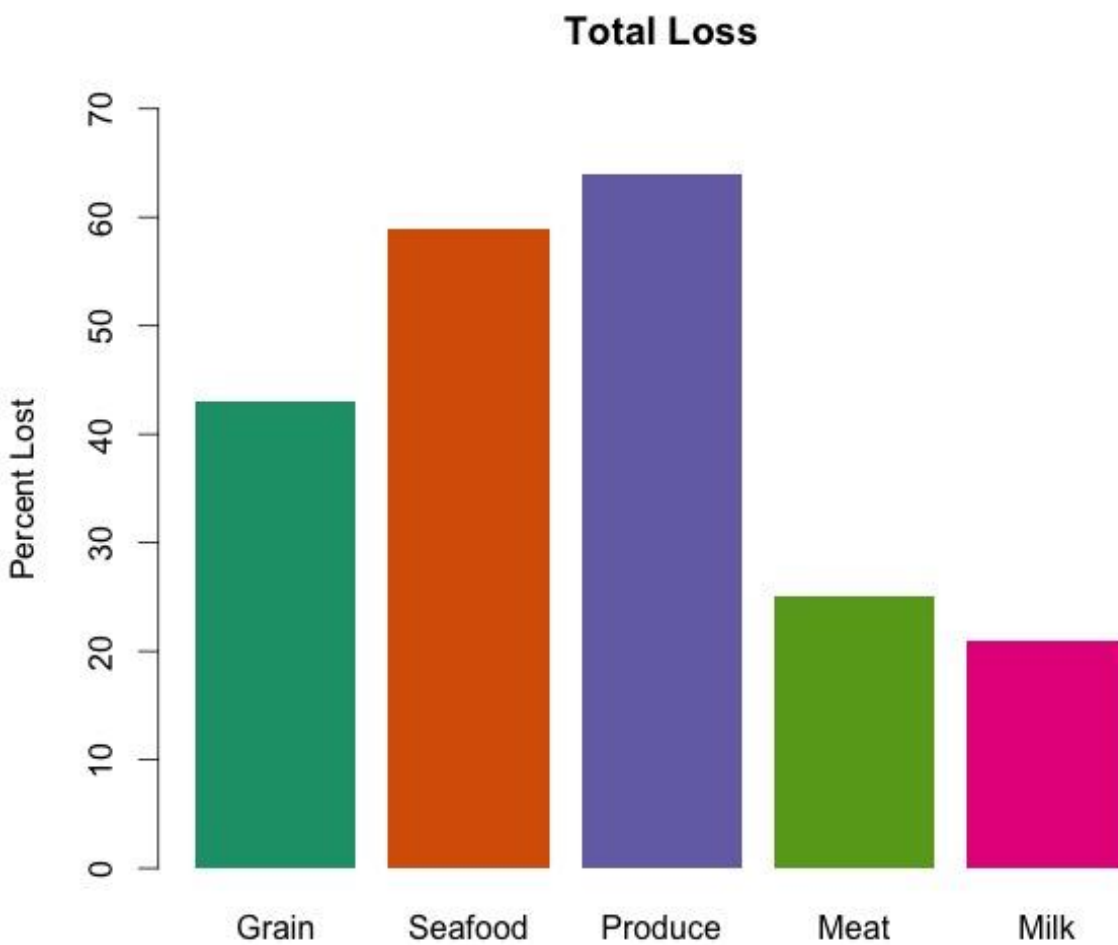


Figure 3. Total percentages of different types of food loss across the food supply chain.

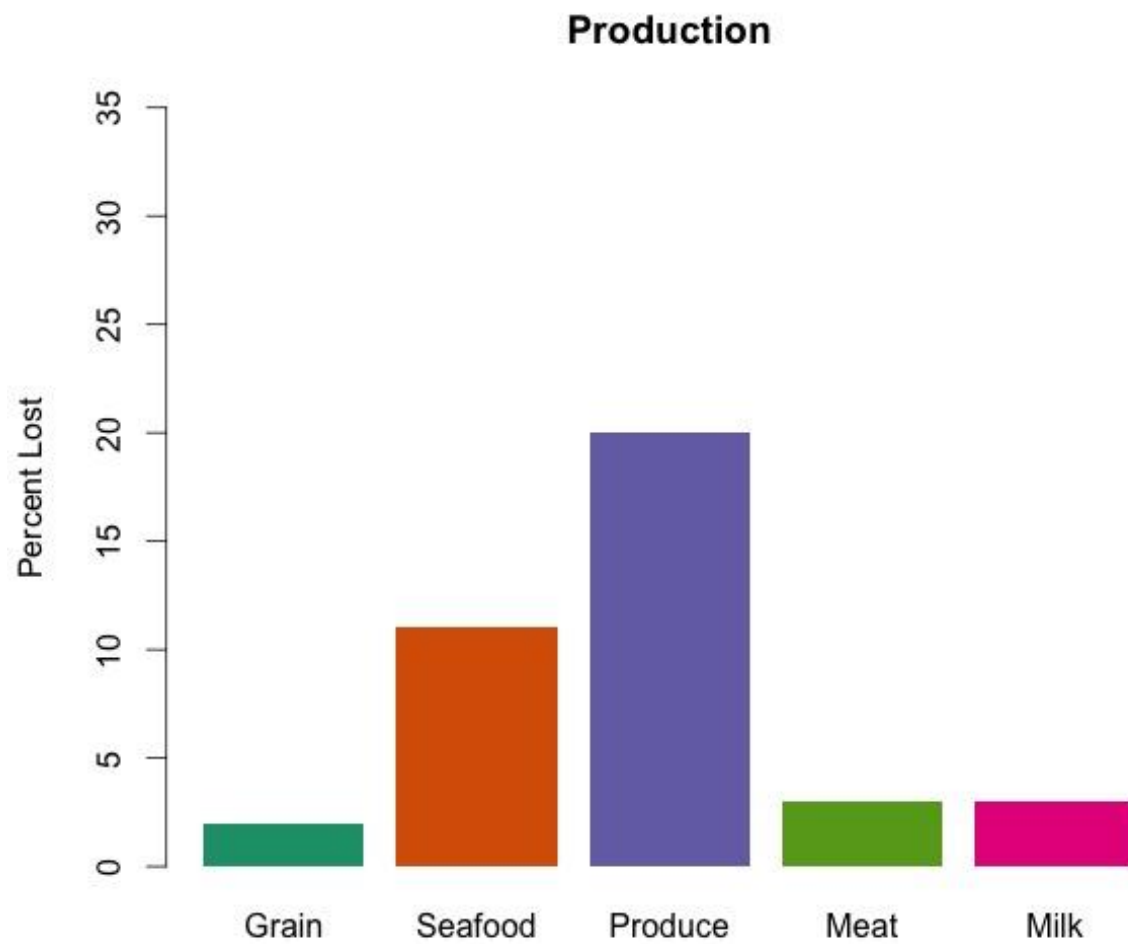


Figure 4. Percentages of different types of food loss in the production stage.

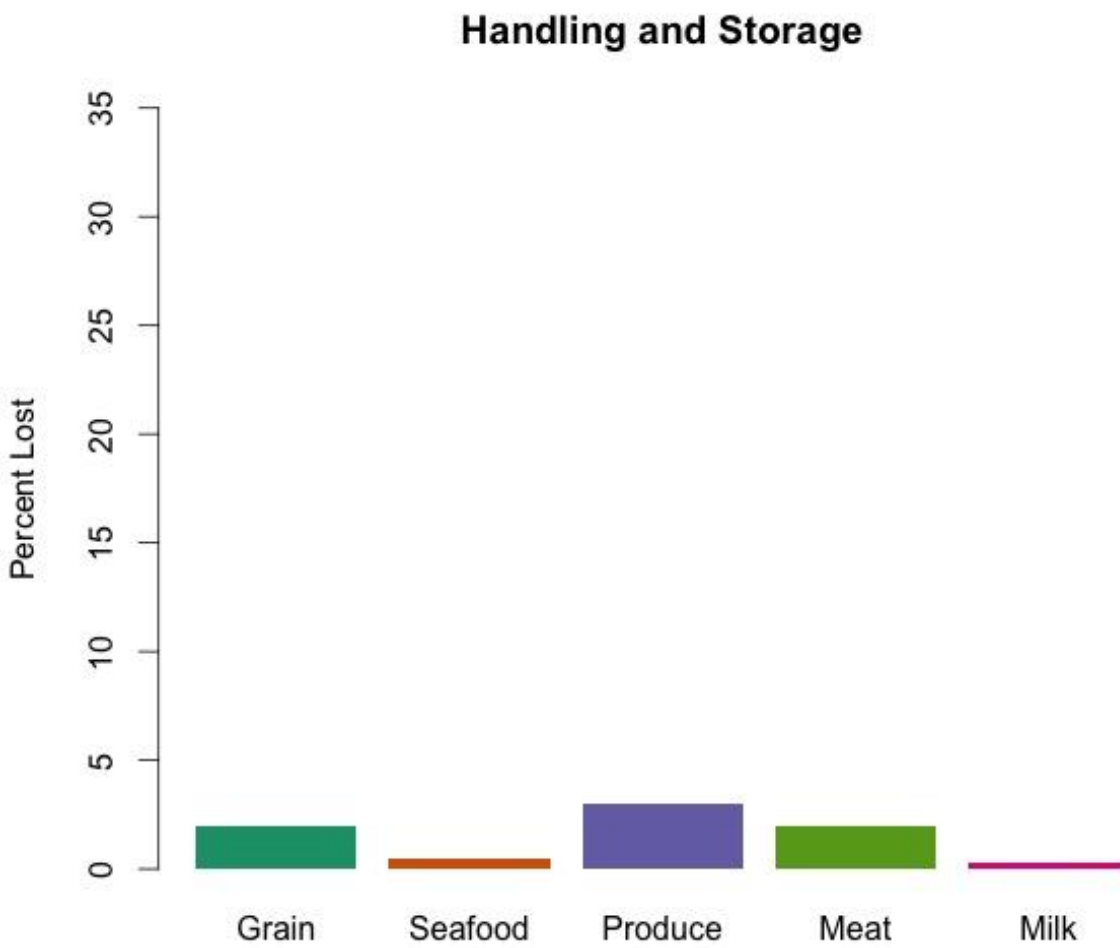


Figure 5. Percentages of different types of food loss in the handling and storage stage.

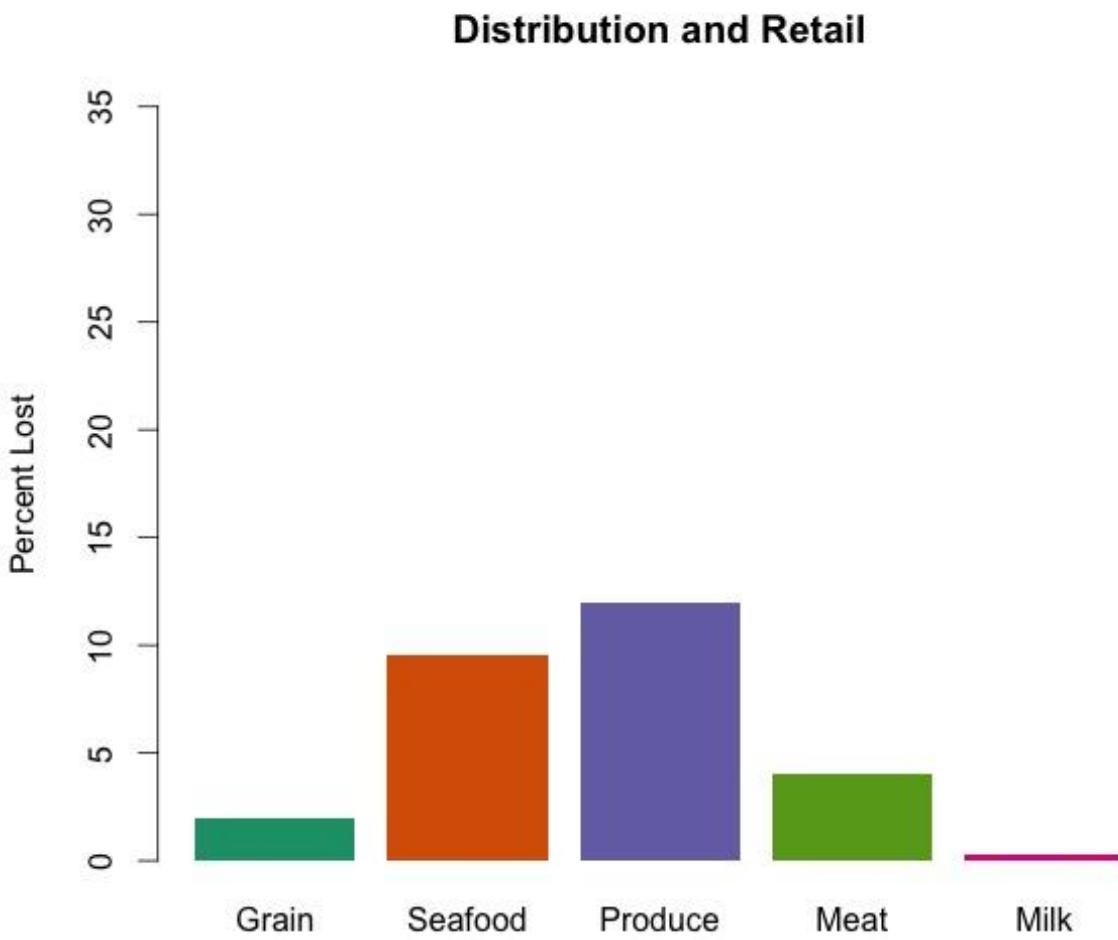


Figure 6. Percentages of different types of food loss in the distribution and retail stages.

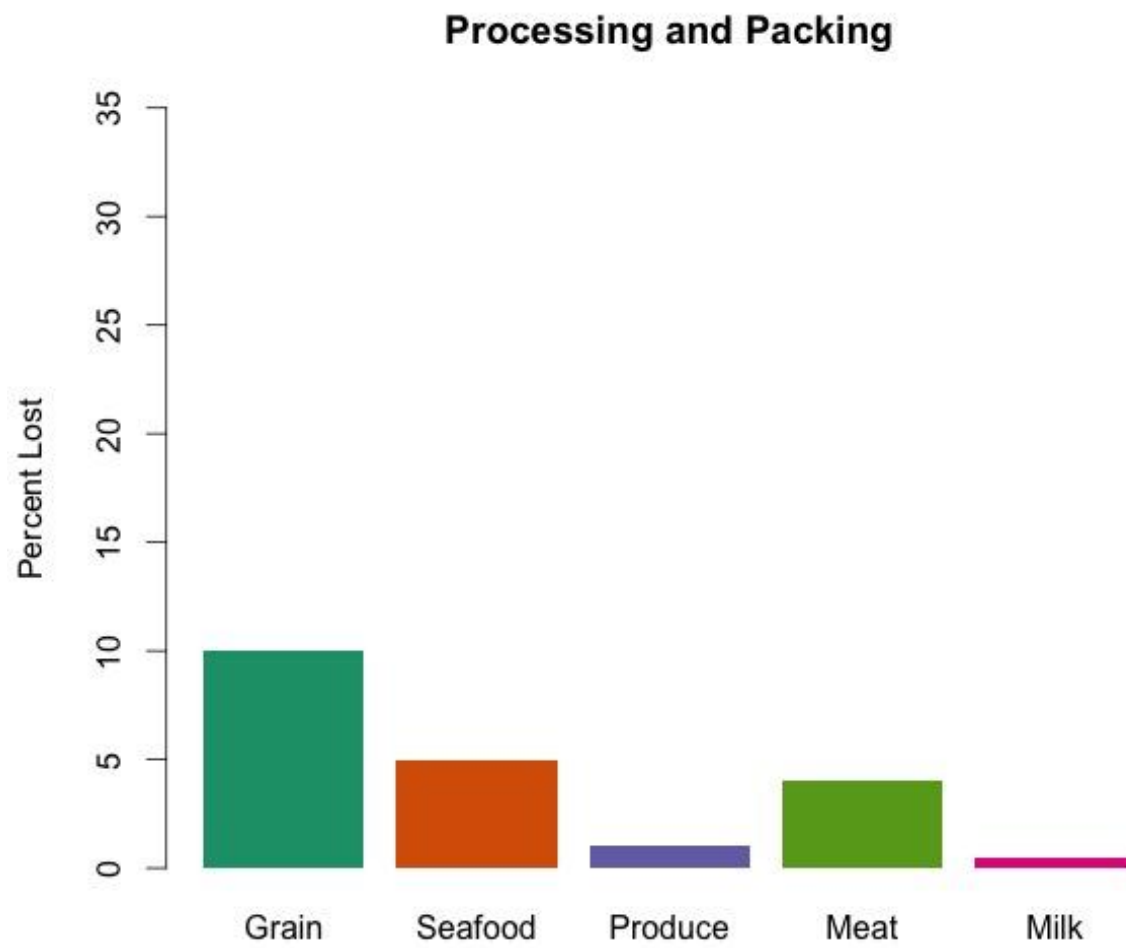


Figure 7. Percentages of different types of food loss in the processing and packing stage.

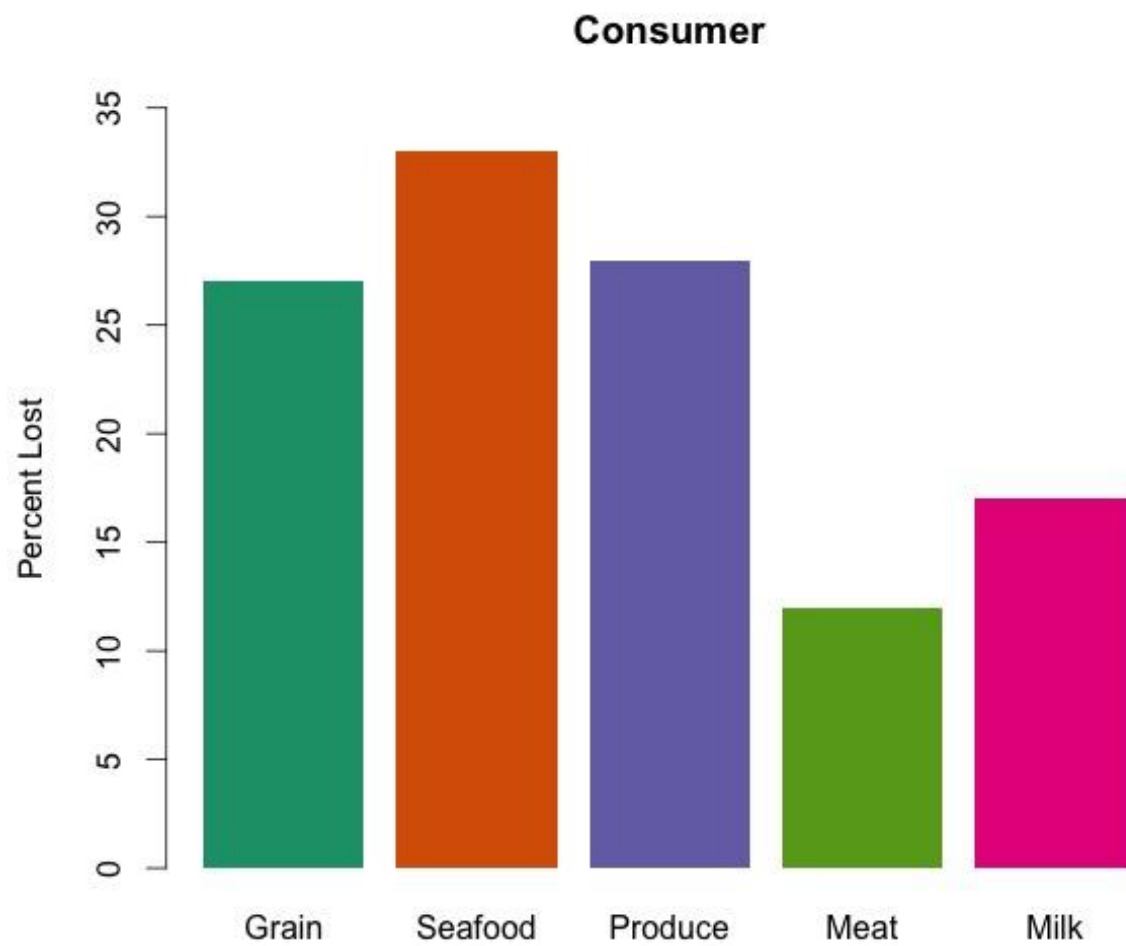


Figure 8. Percentages of different types of food loss in the consumption stage.

Actors in a Food Rescue Network

Different businesses, organizations, and institutions fill many roles across the entire food supply chain. Understanding their roles will help you mitigate food loss within each sector of the food system.

Farmers create a significant amount of edible food loss. Edible food is often left in the field to rot because it is not economically worthwhile for farmers to collect it all. Gleaning initiatives work to combat this issue, by organizing people to collect crops that are left in the field. Another cause of food loss is quality control. For example, visually imperfect crops often go to waste. These foods have the same taste and nutritional value as their more attractive counterparts but unfortunately are not as viable in the market. These foods are perfectly fit for donation or sale at a lower price.

Processors are businesses that add value to food products by washing, packaging, refining, and/or inspecting them. During processing, food loss can occur by means of contamination, quality control/grading issues, and poor packaging. While foods that are considered contaminated are not likely to be eligible for food rescue, foods that have packaging errors or don't meet quality specifications for some reason may be fit for donation. For instance, one dairy processor we spoke with stated that they donate cheese that is edible but may not have the perfect flavor balance they were aiming for. These products may not be up to company standards for sale but are still fit for consumption. Processors may also have product that is nearing the sell-by date and therefore not sellable to retail operations. This product may be suitable for donation.

Distributors purchase and transport food to retailers, restaurants, and institutional food service providers. Some distributors deal with a wide range of products while others focus on certain types of food, for instance produce. Since distributors specialize in their own stage of the food supply chain, maximizing the efficiency of distribution is their sole responsibility in combating food loss. Distributors have to be very careful to make sure that when they store and transport food they closely follow procedures for handling and storing their products. Usually when customers place an order, they accept or reject the delivery when the distributor transports the order to their facility. If they reject it, which happens especially often for retailers who need to maintain high aesthetic standards for their customers, the distributor can usually try to re-sell the delivery. However, this can be especially challenging for fresh foods like produce because these products' quality declines so quickly after harvest. Distributors can try to minimize food loss and rejection of deliveries by carefully inspecting their wholesale purchases, which also helps to minimize lost profit from poor-quality purchases.

Retail food operations sell their products predominantly to the public and must keep enough of every product in stock at a given time for consumers to have a choice when purchasing food. This means that retailers often face different challenges from operations with more predictable demand, for example institutional food service providers and restaurants. Most consumers shop at large chain stores, where distribution is consistent across a regional or national scale and corporate oversight maintains consistency across many operations. Many communities in Vermont also have successful community-owned co-op markets, other independently-owned groceries, and specialty stores. Independent and cooperatively-owned markets tend to have more flexibility in establishing their own systems for dealing with food loss and implementing food rescue programs since they have more control at the store level. For instance, these smaller retailers can work with community members such as local pig farmers to repurpose food scraps that are not fit for human consumption, while some larger chain stores we spoke with must make these arrangements through the bureaucratic system of a national headquarters. In retail operations, food loss is usually called “shrink”. And actually, some shrink is a good thing; when a store has shrink, it means that they have enough product available for consumers to feel like there is a wide enough selection that they can make the best choices. Retailers also sometimes facilitate programs to combat food insecurity in their communities. For instance, retailers can offer extra discounts, memberships, and donation drives for food insecure community members.

Restaurants tend to have less food loss than retail operations because they work with smaller quantities of food and must run a tight operation in order to remain profitable. While restaurants do not generally have as much food loss due to shrink as retailers, they must always have enough food to serve each of their menu options. Restaurants must store surplus food for each of their menu items due to unpredictability in what people order. This creates one source of food loss in their operations. Additionally, when restaurants change their menu, they often have leftover foods from their former menu. Menu transitions are an optimal time for restaurants to make donations to food assistance organizations. Some restaurants also serve as **Caterers** for events of various sizes, which can produce greater quantities of food loss than their usual operations. Often the event sponsor receives any excess food that remains after the event, however sometimes the caterer might be responsible for dealing with this excess. In such cases, the size of the operation may determine the efficiency of any food rescue systems they have in place. For instance, large caterers dealing with consistent and high volumes of excess food per week are more likely to be well equipped to donate food than smaller operations that only deal with excesses a few times per year.

Institutions such as colleges, schools, and hospitals often feed a large number of people daily. Depending on how their operations are set up, they may have exorbitant amounts

of food loss, or very little at all. One college we reached out to reported that their dining services produce very little edible food loss, due to batch cooking and menu planning techniques that are in place. An open kitchen set-up also allows chefs to make food as students come in. All of their inedible organic waste is composted on site. Closed kitchens make batch cooking difficult, because chefs are not able to easily replace food trays or keep track of incoming customers. Institutions that do not have the infrastructure to use batch cooking techniques are likely to have large amounts of edible food loss daily, as they must overestimate the amount of food needed at each meal so as to have enough for everyone. Here there is a large potential for food rescue. School kitchens that must over-prepare in this way may be good candidates for student-led programs such as Campus Kitchens, in which students use excess dining hall food and donated products to cook meals for food insecure community members.

Households waste through excess purchasing, uneaten food, confusion over date labeling, and poor preparation techniques. While this toolkit focuses predominantly on connecting larger businesses in the network to recipient organizations, there is certainly a need for decreasing food waste at the individual household level (see Figure 8) and educating households on determining what kinds of products are fit to donate.

Food Banks are non-profit organizations that collect and distribute food to hunger relief charities. Food banks act as storage and distribution depots for smaller front-line agencies. They do not usually give food directly to people in need. There is often a fee associated with being part of a food bank network, meaning that charitable organizations that receive food from the food bank need to pay to do so. Food banks accept food from various sources in the food industry and are effective recipients of excess food from large businesses such as grocery stores, wholesalers, and restaurants. Each state has at least one food bank, and they tend to have hubs in larger communities. They often rely on donors and volunteers to carry out day-to-day operations. A variety of factors impact how foodbanks work, from the size of the facility to the number of active volunteers and donors.⁹

Emergency Food Programs (EFPs) are sites that are intended to provide short-term assistance to people in crises. Examples of these sites are food shelves, community meal sites, and shelters. Food shelves distribute food directly to food-insecure community members, and are often located in gathering areas of a town such as places of worship, schools, and town halls. Community meal sites provide free hot and nutritious meals to those in need in the community. They usually operate on a fixed schedule, providing meals daily or weekly, but many locations also host special holiday meals. Shelters provide emergency housing opportunities, and often include food shelves or community meal sites. Many emergency food programs get their food from food banks, but they also

⁹ <http://www.feedingamerica.org/about-us/how-we-work/food-bank-network/what-is-a-food-bank.html>

may obtain food from other sources. Often, EFPs need to purchase perishable items, such as dairy, meat and produce. 45.4% of food shelves report needing more fresh fruits and vegetables, while 63.8% need more milk, yogurt, and cheese.¹⁰ Many EFPs lack the infrastructure to properly store perishable items. This represents a significant barrier to some food rescue efforts, because even if the EFPs are able to receive fresh rescued food, they may not have the storage capacity for it. Additionally, EFPs are typically led by volunteers and are often very under-resourced. With an expanding food rescue network, EFPs need support in order to properly and safely distribute large amounts of perishable food.

¹⁰ <http://www.vtfarmtoplate.com/plan/>

Barriers to Food Rescue

Network Barriers

Lack of knowledge and communication

Lack of knowledge and communication is possibly the most salient barrier for the food rescue network. Businesses do not know where to donate their excess food. They don't know about the regulations that accompany food donation or the best practices for it. Recipient organizations do not know how to quickly and effectively connect with businesses with excess food. It is likely that the actors involved in the rescue network have not sat at the same table to learn about each other's needs and availabilities.

Lack of infrastructure and capacity

Insufficient infrastructure and capacity, such as refrigeration, kitchen space, storage, and transportation, is a significant barrier throughout the food rescue network. This is especially true because rescued food can often come in large waves, with organizations suddenly having large amounts of produce or perishables arriving at once. One recipient organization that we spoke with said that after some deliveries, they have needed volunteers to store the food in their home fridges, because they did not have the refrigeration capacity and the food was at risk of spoiling. This infrastructure costs a lot of money and space, two factors that are likely very limited within any food rescue network.

Lack of a reliable and effective volunteer base

Most food rescue organizations and affiliated organizations are volunteer run. Since volunteers are donating their time and likely have other commitments, it may be difficult to achieve the reliability, consistency, and effectiveness of a paid staff.

Donor Barriers

Unreliability in collections by recipient organizations

Since food rescue programs are likely volunteer run, there may be some unreliability in the availability of volunteers to pick up food from donor businesses in a timely manner. This may become a headache for businesses, who are looking to get rid of the food quickly, or need to have staff wait until the collector arrives.

Lack of priority

Many businesses with extra food do not consider donation. Compost is often the default method for diverting organic matter from the landfill, as it requires less sorting, care, and coordination on behalf of the business than diverting food to feed people does. With composting, excess food can be thrown all in one bucket and picked up by waste haulers. Donating food likely requires sorting, dealing with expiration dates, and coordinating where and when to divert the food.

The myth of liability

Many businesses, even food assistance organizations, have a fear that they will be liable should something go wrong with the food they have donated. Few businesses are familiar with the details of the Good Samaritan Act.

Staff time to package and donate

Food donation may take extra time on the part of a business's staff, as food likely needs to be packaged for donation. Many businesses do not want to pay extra for their staff to prepare food for donation, nor do they want to distract them from their main responsibilities.

Recipient Barriers

Unpredictability of donations

Donations of rescued food can be unpredictable in terms of food type, quantity, and timing, making it difficult to coordinate an appropriate recipient, driver, and meal in advance. As a result of the unpredictability, organizations will often receive types and quantities of food that are not appropriate in one way or the other. They may not have the storage capacity to handle the shipment, the staff time to process it, or the ability to prepare and serve the contents.

Nutrition of rescued food

Food assistance programs are not just looking for quantity, they are also looking for quality. Vulnerable populations often lack access to healthy, nutrient-rich foods so it is important that food moving through the food rescue network is both of these things.

Inefficient distribution

While large, well-established food assistance agencies oftentimes receive more than enough food through donations, food is not always getting to agencies and areas that need it most. Oftentimes, over-donation to large agencies leads to waste that could have been used at smaller organizations.

Aging volunteer base

As previously mentioned, food assistance organizations are largely volunteer run. In many organizations, that volunteer base is aging. A younger volunteer base would increase efficiencies, bring new ideas and technological skillsets, provide new energy to the movement, and ensure that the work continues with new generations.

Lack of funding

Most food assistance programs have limited funds to do the work they do. This inhibits their ability to improve infrastructure, hire staff, build capacity, and provide the best programming and assistance to their community.

Recommendations

Coordinating food rescue efforts is no small task. Systems thinking is crucial for food to move efficiently from donors to recipients. Through our research, we consulted with actors in many sectors of our local food system, mostly within Addison County. Our interviews illuminated common barriers to food rescue that are both internal to organizations and systemic. Interviewees also proposed solutions to overcome these obstacles. This section is a synthesis of strategies we found through our research and interviews to make food rescue both efficient and effective. Although there are no one-size-fits-all answers, these broad recommendations are applicable to a variety of settings.

Network Recommendations

Establish a regional working group and hire a coordinator

Many communities host a combination of food assistance organizations, food service businesses, government entities, and other food-related operations that are fighting hunger and food waste. Sometimes, each of these groups works in isolation from each other, limiting its impact to a particular set of skills, resources, and connections. In order to integrate a community's food system, stakeholders must take a collaborative approach to redistributing excess food. The community should establish a regional working group that will bring together representatives from a broad range of sectors. One helpful way of connecting key players is by designating a county- or city-level food rescue coordinator who presides over a cross-sector working group.¹¹ The coordinator would facilitate discussion and the implementation of food rescue efforts. This person would also help stakeholders develop a shared vision for the community. This individual could also support staff at small food shelves in writing grants and executing fundraising activities because they do not often have the capacity to do fundraising themselves.

Identify existing and potential donor networks

Before making any big moves, it is important to spend time understanding the state of food insecurity and food waste in a community. Identifying all the players in the community will reveal programs that already take place and holes that need to be filled. Food rescue coordinators should start by identifying potential donors and recipients and asking their executive managers to fill out the surveys we provide in the appendix. The information will indicate the donation capacities of businesses and the needs of food assistance organizations. Additionally, the surveying process will reveal existing donor networks and potential allies to collaborate with.

Build partnerships

Food rescue efforts should be not only community-serving but community-based. By engaging cross-sector partners, communities will build a more resilient food system. This is the belief upon which Salvation Farms operates. Salvation Farms is a non-profit organization in Vermont that moves surplus food from farms to people who need it.

¹¹ <https://www.sccgov.org/sites/rwr/rwrc/Documents/FoodShiftFinalReport.pdf>

They orchestrate this movement of food through their statewide partnerships. They have relationships with many farms, gleaning collective organizations and distributors across the state, but they also help communities take ownership over gleaning initiatives. Congregations, corporate groups, youth programs, and restorative justice programs are some of the many community-based groups who volunteer to glean through the Salvation Farms network. Through their cross-demographic partnerships, the organization not only addresses food needs—they also promote social change and help unite communities. Their operations serve as an excellent model for the power of collaboration and partnerships.¹²

Continue efforts to coordinate Act 148 compliance with food rescue capacity

Act 148 is already increasing the amount of food that is rescued. However, the degree to which Act 148 is enforced will have a significant effect on the amount of rescued food that takes place. On the low end of the enforcement spectrum, food scrap generators will hardly be affected at all, and the volume of rescued food will not change much. On the high end of the enforcement spectrum, nearly every food scrap fit for human consumption will be rescued according to the Food Recovery Hierarchy, including edible scraps that would otherwise be composted or fed to pigs. The food rescue system would be overwhelmed by the enormous increase in donations, if not prepared to deal with them. Therefore, continuous coordination between the Vermont Agency of Natural Resources and food rescue organizations will ensure that donations and the capacity to deal with them increase concurrently.

Match donors and recipients

New businesses that join a food rescue network must be assessed for the types and quantities of food that they can provide. See the potential donor and recipient forms in the appendix. By understanding the quantity and variety of foods that they can donate, beneficiaries can better coordinate transportation and storage needs. The assessment might also help businesses self-regulate their waste behaviors because it will bring awareness to an issue that might not have been on their radar in the past. For this reason, it is important to periodically do inventories of the food donated. This is also important since their perceptions might not be completely accurate.

Recognize businesses and organizations for their work

Create awards that can be given to individuals and groups in the community who are doing a great job with food rescue. Public recognition will show that food rescue is a priority in the community and encourage others to get involved. It will also reinforce good business practices and show award recipients how much people appreciate what they do.

Identify challenges through interviews and surveys

Creating a food rescue network in a community requires engagement with organizations and institutions that have different priorities and systems for dealing with food loss. A large part of improving food rescue, besides providing information, is learning from

¹² <http://www.salvationfarms.org/>

actors in the food system about what works and what improvements need to be made. To accomplish this, it is important to initiate conversations with all of the possible actors in the food rescue network. In our appendix, we provide a survey that actors can use to explain problems they see with food rescue and ideas on how to make it better. The questions can be presented as a form to fill out or used as an interview tool.

A few notes on approaching local organizations and institutions:

- Conversations should allow plenty of time for respondents to express their own concerns and perspectives
- Try not to lead respondents towards a particular answer. Ask open-ended questions and avoid questions with simple yes/no answers.
- Be respectful of people's time and knowledge. Don't ask too many questions, and respect sensitive topics, especially with vulnerable populations.
- Have conversations with a diverse range of community members, organizations, businesses, and institutions, and ask who they think should be invited to participate in the process.

Funding

Some of the greatest barriers to food redistribution are lack of storage and refrigeration space, transportation, and volunteers to move and process the food. While these challenges already exist, they will become more pressing as Act 148 motivates businesses to increase their donations. In order to build the capacity and infrastructure of food rescue networks, a grant program should be established. Funding will help staff programs, improve infrastructure, and increase the capacity of food assistance organizations. It will also encourage systemic changes in our food system that not only provide a band-aid to food insecurity but also get to the root of the problem.

Use existing resources

Instead of putting more vehicles on the road, buying more refrigerators, and creating new rescue networks where they already exist, food rescue organizations should capitalize on existing infrastructure. By evaluating the state of food rescue through surveys, underutilized community assets will be revealed. Partnerships are a great way to access more resources.

Technology

Technology can be used to make communication, transportation, storage, and tracking food more efficient for both donors and beneficiaries. **Social media** platforms like **Facebook** provide an effective way to organize volunteers and create excitement around a movement. **Crowdfunding** websites can be used to collect donations for an initiative. Creating a web or mobile platform such as an app or forum will help develop connections within the local food system. In Vermont, **Front Porch Forum** is a free online tool that can link community members with one another. One Middlebury business owner stated in an interview that he thinks this forum could be a transformative tool that would enable business owners to communicate about surpluses they have and inform beneficiaries of where to make pick-ups. Elsewhere, food rescue technology is already connecting surplus to need instantaneously. **Chow Match** (see case studies section), an App that currently

operates in California and Maryland, uses impressive matching technology to connect businesses with food to charitable organizations within seconds. Donors input how much and what kind of excess food they have. Then the App designates an available runner to pick up and deliver the food to a recipient organization that wants the donation. It will be helpful to include technology companies at the table when coordinating food rescue efforts.

Motivating Businesses to Donate

Some business owners we interviewed in Addison County did not see donating food as a priority. Part of the problem was that they considered food loss to be a negative externality and did not account for it in their management plan. It is important to show these businesses the benefits of donating food, both for them and their community.

Prioritize food rescue

In diverting food away from landfills, businesses and organizations often default to composting, feeding animals, or other downcycling. Diverting all food stuffs to compost may be viewed as easier and more time effective than donating. Education and support is needed to encourage businesses to prioritize food donation over compost and other lower hierarchical food diversion methods.

Address liability fears

Since 1996, the Bill Emerson Good Samaritan Food Donation Act has protected both donor and recipient agencies from civil or criminal liability except in cases of gross negligence and intentional misconduct.¹³ Since this law has been passed, there has never been a lawsuit against someone who has been under the protection of this law, yet many businesses are still concerned about the liability of donating food. This misconception causes them to waste perfectly good food. We provide an Emerson Act info sheet in the appendix that can be shared with potential donors.

Waste reduction

One advantage of food rescue is that it makes businesses monitor their food loss. Only when people are aware of their behavior can they make efforts to change it. Once they enter the food rescue network, they will monitor their food loss in new ways. They can establish a baseline level of how much surplus they produce per week, and then set goals on how to reduce that waste. Eventually they can zero out their waste this way. Reducing waste is not only responsible but it is also economically profitable to the business. In the Potential Donor form in the appendix, we provide space for businesses to do an initial waste inventory. It is important to regularly re-survey, both in order to help them monitor their behavior and also to ensure that their records are accurate for the sake of recipient organizations and transportation planning.

¹³<http://www.feedingamerica.org/ways-to-give/give-food/become-a-product-partner/protecting-our-food-partners.html?referrer=https://www.google.com/>

Food rescue as a marketing strategy

Food rescue can also be pitched as a marketing strategy.¹⁴ When businesses donate, it shows that they are both socially and environmentally responsible. They will get positive PR, improve their brand image, and expand their customer base. Food rescue also creates a healthy, attractive work environment for employees.

Avoid tipping fees

Oftentimes, donating costs less than paying a compost hauler, especially if the compost hauler can be eliminated altogether. Businesses have to manage their surplus food somehow, and since they already have a legal obligation to divert their waste from the landfill, why not make the extra step and manage it in an even more sustainable way. They will not have to pay a tipping fee for compost and in most cases will not be required to pay for donations to be hauled. Additionally, businesses can receive tax benefits for their donations. See the flyer in the appendix about tax benefits.

Ethical obligation

Lastly, everybody has a natural right to healthy food. Donating food should not only be an act of charity but rather a moral obligation. When we are privileged with more than enough food, we have the opportunity and duty to help people who are not.

Recommendations for Recipient Organizations

Volunteers

Smaller food assistance organizations often struggle to acquire enough staff and volunteers to operate. This lack of workers limits the time that organizations can be open, moving, and serving food. Developing a large, reliable volunteer base will help food assistance organizations thrive. There are several great ways to reach out to and retain volunteers. Social media can be used to share volunteer opportunities and events. Colleges, high schools, youth groups and sports teams are excellent ways to reach a younger volunteer base. College students are often eager to connect with the community beyond campus and would be enthusiastic about supporting local charitable organizations on a regular basis. Hosting fundraising events such as 5k races and charity dinners will raise awareness about the organization and entice people to volunteer as well. One way to keep people interested and aware of volunteer opportunities is by putting them on an email list and including them in monthly newsletters.

Food safety training

Provide a safety training program for food assistance agencies so that they can communicate with donors about food safety qualifications. Think about encouraging or requiring volunteers and workers to get a food handler's permit to ensure safe and effective handling of perishable food. Small food shelves put a lot of trust in volunteers because they typically do not have a large paid staff, so it is important that the volunteers are knowledgeable about food safety.

¹⁴ <http://www.boulderfoodrescue.org/index.php/start-your-own-food-rescue/>

Overcoming barriers to food access

Food assistance programs do not serve all individuals who are food insecure, and they are also sometimes difficult to access. It is important to identify people who are left out of current food assistance programs and the barriers that exclude them. Some common barriers include lack of transportation to food shelves and uncertainty regarding which food shelves they can visit, how much food they can pick up, and how often they can make visits. Encourage food assistance organizations to team up with county hunger councils, schools, and other public service organizations to disseminate information that makes services more accessible. Spread awareness about public transportation options. Explicitly state the hours and availability of food pantries, and keep the hours and schedule consistent from week to week.

Discernment

It is hard for people to recognize what the best movement is for food that has been rescued. Sometimes, rescued food is not good enough quality to move to people and is better suited for compost and animals. Organizations must consider turnover time between when the food is picked up by a non-profit and eventually put on somebody's plate. Problems arise when food assistance organizations do not have the capacity to move unsuitable food to compost or animals. This creates a huge burden for the organizations. The keys to addressing these issues associated with discernment are efficiency in the movement of food, making sure the right organization is collecting the food at the best time, and education. Sometimes people pick up food for shelters because it feels good to serve others, but when this is done without consideration of the quality, freshness, and turnover time of the food, then it may end up going to waste. For example, with regards to gleaning, people shouldn't glean for gleaning's sake. If someone has available greens but can't move them, they should leave them in the fields. It's better for the soil than the burden down the road.¹⁵

Process produce and perishable foods to extend their lifespan

Oftentimes, perfectly good food goes to waste because its shelf life is too short for it to be donated in time. Processing perishable food can lengthen its shelf life and make it more viable for the rescue network. Processing techniques may include packaging, dehydrating, and canning.

¹⁵ The discernment section is based on an interview with a Vermont non-profit involved in gleaning

Case Studies

There are already a plethora of organizations that are tackling food rescue in creative and innovative ways. We have compiled a list of existing efforts from around the world that can inform efforts here in Vermont.

Other Food Rescue Toolkits

[Foodwise](#), an organization that deals with sustainable food issues in Australia, has created a useful food rescue toolkit which explores incentives, challenges, legalities, and recommendations for food rescue. It also provides a very accessible outline of the major charities around the country working on food rescue so that anyone from restaurant owners to food pantry staff members can connect with groups that facilitate different types of food rescue in different parts of the country. These organizations demonstrate the kinds of work that existing organizations in Vermont might be able to take on to improve food rescue opportunities, or serve as models for entirely new organizations dedicated to food rescue.¹⁶

[Santa Clara Food Shift](#) is an organization in Santa Clara County, California that aims to rescue surplus food and feed people. They created a toolkit to help stakeholders understand the gaps and challenges in the food rescue sector and to better understand where there are opportunities for innovation. The toolkit provides recommendations to improving the network. We used this toolkit to help guide the development of the current toolkit, as many of the barriers and challenges mirrored those in Vermont.¹⁷

[The Natural Resources Defense Council](#) created a summary in English of legislative proposals regarding food waste and food rescue in France. In 2015, France passed legislation that bans supermarkets from throwing away unsold food. Instead, they are required to donate it to charities or give it to farmers for animal feed. Within this law is a requirement that supermarkets not deliberately spoil unsold food so that it cannot be scavenged and eaten from waste bins. The law also stipulates that schools and businesses incorporate education about food waste into their programming. The NRDC's summary also includes a list of stakeholder responsibilities as well as recommendations for implementation.¹⁸

¹⁶ <http://www.foodwise.com.au/wp-content/uploads/2012/09/DoSomething-Food-Donation-Toolkit.pdf>

¹⁷ <https://www.sccgov.org/sites/rwr/rwrc/Documents/FoodShiftFinalReport.pdf>

¹⁸ <https://www.nrdc.org/sites/default/files/france-food-waste-policy-report.pdf>

Organizations that Provide Food Rescue Services

[Keep Austin Fed \(KAF\)](http://keepaustinfed.org/) is a grassroots group of volunteers that gathers healthy, edible surplus food from local sources. Most donors give prepared food -- cooked meals, salads, sandwiches, etc., which volunteers quickly pick up and distribute to charities in Austin, Texas. All volunteers are required to have a food handler's permit so prepared foods with short shelf-lives can be handled in a safe and quick manner. KAF provides equipment, training, and support while volunteers donate their time and use their own vehicles.¹⁹

[Denver Food Rescue](http://denverfoodrescue.org/) uses the sustainable method of bicycle power to save good produce from farms and grocery stores that would otherwise end up in a landfill. They then redistribute it to organizations that work with food insecure and low-income communities.²⁰

[DC Central Kitchen](http://dccentralkitchen.org/) offers path-breaking solutions to poverty, hunger, and poor health through job training, healthy food distribution, and local farm partnerships. It recovers food from grocery stores, restaurants, wholesalers, farms, corporate food services, catered events and farmers markets and serves healthy meals. Its fleet of trucks distributes at little or no cost to 100 nearby homeless shelters, transitional homes, and non-profit organizations. Last year DC Central Kitchen recovered 707,008 lbs. of food, including 321,075 lbs. of produce.²¹

[City Harvest NYC](http://www.cityharvest.org/) collects ~55 million pounds/year of excess food from restaurants, grocers, bakeries, manufacturers, and farms, and delivers it free of charge to 500 community food programs across the city. In addition to helping meet the immediate need for food, City Harvest takes a long-term approach to fighting hunger by partnering with residents, local organizations and businesses to increase the availability of affordable fruits and vegetables in low-income communities and provide the nutrition education and resources to maintain a wholesome, food-secure diet. 99% of City Harvest's funding comes from private sources. They also receive small yearly grants from different federal, state and municipal sources.²²

[Campus Kitchens Project](http://www.campuskitchens.org/) is a national organization based in Washington, DC that empowers student volunteers to create innovative and lasting solutions to hunger. On campuses across the country, students transform unused food from dining halls, grocery stores, restaurants, and farmers' markets into meals that are then delivered to local organizations serving food insecure people. In running a community kitchen, students develop important entrepreneurial and leadership skills, along with a commitment to serve their community.²³

¹⁹ <http://keepaustinfed.org/>

²⁰ <http://denverfoodrescue.org/>

²¹ <http://dccentralkitchen.org/>

²² <http://www.cityharvest.org/>

²³ <http://www.campuskitchens.org/>

White Pony Express is a food rescue program in Contra Costa County, California. The program partners with farmers markets, grocery stores, school lunch providers, and other food retailers to pick up and deliver surplus foods to 501(c)3 organizations serving people in Contra Costa County. The program is 100% volunteer run and is made up of dispatchers, who check messages from food donors from 9am-9pm and then assign “runners” to pick up the donation and bring it to a partner organization, free of charge and within two hours of the call. The program handles scheduled pickups, as well as day off pickups as food becomes available. Each morning, White Pony Express posts a chart in the distribution area that details the food preferred by partner organizations that day. Dispatchers refer to the chart to best match surplus with need. Refrigerated truck owned by White Pony are used to transport food. Details on financials can be found on the White Pony Express website.²⁴

Move For Hunger is a 501(c)3 non-profit organization that works to combat all the food waste that occurs when people move homes. It works with relocation companies to collect non-perishable food and deliver it to food banks across North America. It works with over 601 relocation companies, who pick up the food households put aside and drop it at local food banks. Moving companies use their own resources to do so.²⁵

Food Rescue Technology

Chow Match App is a software technology operated by Hiring Logic that uses matching logic to connect charitable food organizations with surplus food donated by restaurants, grocery stores, caterers, farms and other businesses. Businesses with surplus food submit a request on the App and Chow Match locates a matching recipient organization within seconds. It then assigns an available Chow Runner to pick up the food and deliver it. Reports are available through the app for tax and administrative purposes. The app is currently active in California and Maryland but the company hopes to expand globally. There is both a free version and an enterprise version.²⁶

Waste No Food is a web platform focused in California. The nonprofit provides a web-based "marketplace" allowing excess food to be donated from the food service industry to qualified charities that work with food insecure populations. Donors who wish to donate their excess food can sign up and post excess food as it becomes available. Qualified charities in the vicinity of the donors who have been vetted by Waste No Food, can claim the food. The charities are responsible for transportation and food handling.²⁷

²⁴ <http://www.whiteponyexpress.org/> The organization stresses financial transparency. Annual financial information can be found here: <http://www.whiteponyexpress.org/financials.html>

²⁵ <https://moveforhunger.org/>

²⁶ <http://www.chowmatch.org/>

²⁷ <http://wastenofood.org/>

Food Rescue in Vermont

The [Vermont Foodbank](https://www.vtfoodbank.org/) provides fresh produce, shelf-stable food, and prepared meals to over 225 network partners, each of which pays a small membership fee. The membership fee is based on how much food the operation needs. Thus, smaller food shelves pay much less than large operations. Those network partners include food shelves, meal sites, senior centers and after-school programs. Food is gathered from grocery stores, food manufacturers, farms, businesses, restaurants, individuals, and Feeding America, the national network of foodbanks. The Foodbank also partners with Vermont farms and orchards to obtain more fresh, local produce through gleaning and Pick for Your Neighbor. The VT Foodbank does not necessarily pick up and store all of the food it diverts, rather it serves as a facilitator of direct relationships between food waste producers and charitable distributors. The Foodbank will take on the front-end logistics to initiate these partnerships, coordinating dates and times for charitable distributors to pick up food from producers, such as grocery stores and wholesalers.²⁸

[Salvation Farms](http://www.salvationfarms.org/) is a not-for-profit organization that works to “build increased resilience in Vermont’s food system through agricultural surplus management.” They are a leader in the sustainable foods movement in the state, and demonstrate the power of collaboration and cross-sector partnerships in improving food systems. Through the Vermont Gleaning Initiative and Vermont Commodity Program, they are creating a statewide blanket of gleaning initiatives to capture greater volumes of otherwise wasted farm fresh food.²⁹

[Willing Hands](http://www.willinghands.org/) is a non-profit, charitable organization operating throughout the Upper Valley region of Vermont and New Hampshire. It distributes free, wholesome food to food insecure populations. The organization’s single truck picks up donated food and delivers this food to local human service organizations. Willing Hands also provides gleaning services and collaborates with local organizations to provide nutritional education.³⁰

²⁸ <https://www.vtfoodbank.org/>

²⁹ <http://www.salvationfarms.org/>

³⁰ <http://www.willinghands.org/>

Appendix

To encourage many different actors in a community's food system to engage with food rescue initiatives, we have created a number of resources that will help communities to implement our recommendations. The following resources can be found in this section:

- Survey tool for potential donors
- Survey tool for potential recipients
- Survey tool for community capacity building
- Household food waste reduction tips
- Excess food diversion and donation guide for commercial kitchens
- Excess food diversion and donation guide for households
- 6 Reasons your business should donate food
- 10 Steps for safely donating food
- Transporting rescued food
- Tax incentives
- Vermont Universal Recycling Law (Act 148)
- Universal recycling timeline
- Bill Emerson Good Samaritan Act
- Recommended reading

Means of Communication: _____

Date: _____

Questions for Potential Donors

Business:

Address:

Contact Person: _____

Position: _____

Phone: _____

Email: _____

Type of business:

Do you already compost? yes noDo you donate surplus food to community organizations? yes no

If so, where?

In pounds, how much **excess** edible food do you produce per week?

What is the monetary value of this food?

What kinds of food could/do you donate? Please specify next to each box with the specific foods in that category and quantity/week to the best of your knowledge.

 Prepared foods

 Bread or baked goods

 Produce

 Dairy products

Meat or fish

Non-perishable food

Outdated products

Frozen food

Could your business transport the excess food to local food pantries/shelves? yes
 no

If not, when would it be most convenient for food to be picked up?

Nearest potential recipients?

Means of Communication: _____

Date: _____

Questions for Potential Recipients

Organization:

Address:

Contact Person: _____

Position: _____

Phone: _____

Email: _____

Type of organization:

- Food shelf
- Food bank
- Community meal program
- Shelter
- Other nonprofit

501(c)3 status: yes
 no

Refrigerated storage capacity? yes
 no

Kitchen? yes
 no

Do you already compost? yes
 no

Who donates food to you now?

What kinds of food could/do you donate? Please specify next to each box the specific foods in that category and quantity/week to the best of your knowledge.

Bread or baked goods

Produce

Dairy products

Meat or fish

Non-perishable food

Frozen food

Outdated products

Hot prepared foods

Which types of food do you automatically reject?

Approximate demand per week (lbs.)?

Approximate # of people served per week?

**Building Capacity
Survey for Recipient Organizations to Help Improve the Local Network**

Organization name:

Address:

Person filling out form:

Phone: _____

Email: _____

What are your biggest challenges in relation to food rescue?

- Difficulty finding donors
- Lack of variety in food donated
- Limited staff/volunteer base to pick up donations
- Lack of transportation
- Lack of storage/refrigeration space
- Unpredictable donations
- Liability or food safety concerns
- Inefficient coordination of runners/transportation/pick-ups
- Financial Constraints
- Other

Please elaborate on each of the challenged you checked above:

What efforts would improve food rescue within your organization?

What efforts would improve food rescue at the community/city/region level?

Household Food Waste Reduction Tips

In the U.S., 40% of the food we produce goes to waste, and a significant portion of this waste happens at the household level. You can make a difference by changing the way you deal with food in your home. Your efforts will help conserve energy and resources and also save you money. Here are a few steps to change your own consumption patterns:

1. Create an “eat-first zone” in your fridge
2. Buy and eat funny looking and imperfect produce
3. Plan meals and use grocery lists to avoid impulse buys
4. Make soups, quiches, and salads out of leftover produce
5. Freeze leftovers
6. Designate one dinner a week as a “use-it-up” meal
7. Understand expiration dates
8. Compost food scraps
9. Donate non-perishables you are not using to food shelves
10. Improve your methods of storing food so that it lasts longer
11. Buy less food at the store. People often buy more than they need and allow the excess to go to waste.
12. Shop at grocery stores that practice responsible waste management.

Excess Food Diversion and Donation Guide for Commercial Kitchens

Beginning in 2020, all Vermont restaurants and other commercial kitchens must divert excess food from their trash.

What am I supposed to do with my food scraps?

- **Best:**
 - Donation to Food Bank
 - Helps others, and you get tax benefits. See below for more info
 - Requires separating edible food scraps from inedible scraps
- **Very good:**
 - Reuse as animal feed
 - Either on your own or through your hauler
- **Good:**
 - Composting
 - In your own backyard, or through your hauler
 - Anaerobic Digestion
 - Offered at some farms and through some haulers

Note that all haulers and transfer stations are required by law to provide food scrap repurposing/reuse options.

I want to donate excess food! But what about liability?

According to the Bill Emerson Good Samaritan Act, “A person or gleaner shall not be subject to civil or criminal liability arising from the nature, age, packaging, or condition of apparently wholesome food or an apparently fit grocery product that the person or gleaner donates in good faith to a non-profit organization for ultimate distribution to needy individuals.” In other words, as long as businesses and institutions make a good faith effort to follow the usual safe food handling procedures, and the food appears to be fit for consumption, the business/institution or its employees cannot be held liable for any donation of food to a charitable organization.

What tax benefits are available if I donate food to charity?

Businesses may deduct the lesser of either: (a) twice the business’ cost to buy or make the donated food; or (b) the business’s cost to buy or make the donated food plus one half of the food’s expected profit margin, if it were sold at fair market value. *For more detailed information, contact the Vermont Foodbank or visit their website.*

Excess Food Diversion and Donation Guide for Households

Beginning in 2020, all Vermont households must divert excess food from their trash.

What am I supposed to do with my food scraps?

- Best:
 - Donation to Food Bank
 - Helps others, and you get tax benefits. See below for more info
 - Requires separating edible food scraps from inedible scraps
- Very good:
 - Reuse as animal feed
 - Either on your own or through your hauler
- Good:
 - Composting
 - In your own backyard, or through your hauler
 - Anaerobic Digestion
 - Offered at some farms and through some haulers

Note that all haulers and transfer stations are required by law to provide food scrap repurposing/reuse options.

I want to donate excess food! But what about liability?

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What tax benefits are available if I donate food to charity?

You may treat the value of the donated food as a charitable donation writeoff on your tax paperwork. It's the same as donating money or a piece of property, like a vehicle, to charity. *For more detailed information, contact Vermont Foodbank or visit their website.*

6 Reasons Your Business Should Donate Food

1. **CUTS COST:** Donating may cost less than paying a hauler. You have to manage your excess food somehow. Why not save money while doing it?
2. **RECEIVE TAX INCENTIVES:** You can receive tax deductions by donating food.
3. **CONSERVE RESOURCES:** When you throw food into the compost or trash, you are squandering large amounts of water, land, labor, fertilizer, and fuel that it takes to grow the food.
4. **ZERO OUT YOUR WASTE:** Donating food will help you zero out your waste. Once you start measuring the quantity of food you waste, you can establish a baseline and set goals for waste reduction. You can save tons of money in the long run.
5. **MAKE IT A MARKETING TECHNIQUE:** Responsible business practices attract more customers and create a healthy work environment for employees. Your employees will be more satisfied knowing that their business is operating on socially and environmentally responsible standards.
6. **SUPPORT YOUR COMMUNITY:** Donating food is a great way to connect with the community your business operates within. Community engagement is important when attempting to achieve success within that community.

10 Steps for Safely Donating Food

A Guide for Businesses

1. Consult with recipient organizations about their standards
2. Make sure the food will remain fit for consumption for several more days if stored properly. In general, food may still be good if past its expiration date, but you should check with the recipient organization before donating.
3. Follow local health code regulations for preparation and storage, just as you would for your customers
4. Keep a log of how food has been handled and stored; send this log along with the food when you donate it so they know it's good to eat.
5. Do not donate high risk items such as seafood or home-canned products
6. Do not donate items with obvious decay or contamination
7. Do not donate unwrapped or previously exposed items such as buffet food
8. Do not donate products containing alcohol
9. If excess food is not up to standards listed above, consider donating it to farmers or community members with livestock instead.
10. Train your staff!

Transporting Rescued Food

Different types of food have different transportation needs. Packaged and canned foods have different needs than prepared and temperature controlled foods (see chart below). For temperature controlled food, it is important that food remains in the proper temperature range. Speak with your local health board and food rescue organizations to ensure that food is being transported properly. It is recommended that transportation logs are kept to ensure that food is arriving at the donation location in the same condition it left your facility.

| Food Type | Storage Requirements | Non-Acceptable Conditions |
|---|---|---|
| Prepared Foods | 41°F or lower 0°F or lower | Stored between 40-140°F more than 2 hours Previously reheated foods Foods previously served |
| Chilled Perishable Packaged Foods (e.g. dairy, juice) | 41°F or lower | Stored between 40-140°F more than 2 hours Damaged or bulging packaging Stored in non-food grade packaging |
| Meat, Poultry, Fish (Unfrozen) | 41°F or lower | Stored between 40-140°F more than 2 hours Stored in non-food grade packaging |
| Meat, Poultry, Fish (Frozen) | 0°F or lower | Stored between 40-140°F more than 2 hours Severe freezer burn Defrosted product |
| Fresh Produce (Whole) | Stored in a cool, dry and clean area | Significant Decay |
| Fresh Produce (Cut) | Stored at 41°F or lower | Stored between 40-140°F more than 2 hours Color change or decay |
| Baked Goods | Stored in a cool, dry and clean area | Stored in non-food grade packaging Moldy or stale products |
| Canned/Boxed Foods | Stored in a cool, dry and clean area | Damaged or bulging packaging Home-canned products |

<http://www.recyclingworksma.com/donate/>

Tax Incentives

In addition to supporting your community and helping those in need, your business can be eligible for tax incentives to donate food to charities.

Here is information about tax incentives from the Vermont Foodbank:

Allowable Deductions for Charitable Donations of Ordinary Income Property: The general rule since 1969 states that a taxpayer who contributes appreciated inventory or certain other ordinary income property is permitted a charitable deduction only for an amount equal to the taxpayer's basis in the contributed property, generally limited to the adjusted basis of the property, not its fair market value.

Congress, in the 1976 Tax Reform Act, further refined the statute to allow corporate donors (applicable for C corporations, not S corporations) an increased deduction, under certain circumstances, for contributions of ordinary income property to a public charity or to a private operating foundation.

Under IRC Section 170 (e) (3), a corporation is entitled to a deduction with respect to a contribution to a public charity or to a private operating foundation of appreciated property described in IRC Section 1221 (1) and (2). That is, certain types of ordinary income property in an amount equal to:

- A. The sum of one-half of the unrealized appreciation (market value minus cost equals appreciation) plus the taxpayer's cost, but*
- B. Not in excess of twice the cost of the contributed property as described in IRC Section 170 (e) (B).*

Example: Selling Price \$4.00 Cost \$1.00 Gross Profit \$3.00 One-half of \$3.00 equals \$1.50. The maximum deduction can never exceed two times cost (\$2.00). Therefore, gross profit is limited to \$1.00. Total charitable deduction: \$2.00

** A common example of ordinary income property is property held primarily by the donor for sale to customers in the ordinary course of business.*

Vermont Universal Recycling Law (Act 148)

The Universal Recycling Law, Act 148, requires that all food materials be diverted from the landfill and repurposed in some manner as of 2020. Originally passed in 2012, it is the first law of its type in the United States. Since Vermonters must adapt their waste management practices to accommodate the law, there is no better time to develop a more robust food rescue network in this transition period.

Act 148 **bans certain materials from the landfill**, and establishes infrastructure to accept and recycle those banned materials. From 2020 onwards, food scraps are banned from the landfill entirely, and producers of all sizes, including individual households, are required to comply. Haulers are required to provide collection and processing services for the food waste, although unlike other recyclables, they may charge extra for this service if they wish. The law also mandates that excess food be repurposed according to the Food Recovery Hierarchy, which specifies the best possible use for various types of food scraps in various conditions. Ideally, scraps would be repurposed according to its highest possible reuse value, rather than all just being downcycled into compost.

Implementation and enforcement are responsibilities of municipalities and/or Solid Waste Management Districts. Initially the main focus is to just make sure that the proper facilities for waste processing exist and are accessible to all. Later, enforcement will take place, likely as an add-on to existing inspection processes required for restaurants and other commercial kitchens. It would be wise for food waste generators to begin recycling organic waste, or to at least have a plan in place for when compliance becomes mandatory.

Assuming a food waste generator has at least some quantity of inedible food waste, their waste will have to be picked up and delivered to a composting or livestock feeding operation. Since most of the cost associated with food waste disposal is in the trucking (which generally stays relatively constant regardless of how much waste is being picked up), the practice of further separating out edible food from inedible food will generally not result in savings on disposal costs.



Universal Recycling TIMELINE

**JULY 1
2014**

- ▶ Transfer stations/Drop-off Facilities must accept residential recyclables at no extra charge
- ▶ Food scrap generators of 104 tons/year (2 tons/week) must divert material to any certified facility within 20 miles

**JULY 1
2015**

- ▶ Statewide unit based pricing takes effect, requiring residential trash charges be based on volume or weight
- ▶ Recyclables are banned from the landfill
- ▶ Transfer stations/Drop-off Facilities must accept leaf and yard debris
- ▶ Haulers must offer residential recycling collection at no extra charge
- ▶ Public buildings must provide recycling containers alongside all trash containers in public spaces (exception for restrooms)
- ▶ Food scrap generators of 52 tons/year (1 ton/week) must divert material to any certified facility within 20 miles

**JULY 1
2016**

- ▶ Leaf, yard, and clean wood debris are banned from the landfill
- ▶ Haulers must offer leaf and yard debris collection
- ▶ Food scrap generators of 26 tons/year (1/2 ton/week) must divert material to any certified facility within 20 miles

**JULY 1
2017**

- ▶ Transfer stations/Drop-off Facilities must accept food scraps
- ▶ Haulers must offer food scrap collection
- ▶ Food scrap generators of 18 tons/year (1/3 ton/week) must divert material to any certified facility within 20 miles

**JULY 1
2020**

- ▶ Food scraps are banned from the landfill

Bill Emerson Good Samaritan Act

In 1996, President Clinton signed this act to encourage food donations to nonprofit organizations.

The law:

- **Protects you from liability when you donate to a nonprofit organization**

“A person or gleaner shall not be subject to civil or criminal liability arising from the nature, age, packaging, or condition of apparently wholesome food or an apparently fit grocery product that the person or gleaner donates in good faith to a non-profit organization for ultimate distribution to needy individuals.”

- **Protects you from civil and criminal liability should the product donated in good faith later cause harm to the recipient**

“A non-profit organization shall not be subject to civil or criminal liability arising from the nature, age, packaging, or condition of apparently wholesome food or an apparently fit grocery product that the non-profit organization received as a donation in good faith from a person or gleaner for ultimate distribution to needy individuals.”

- **Sets a floor of gross negligence or intentional misconduct for donors**

“The term ‘gross negligence’ means voluntary and conscious conduct (including a failure to act) by a person who, at the time of the conduct, knew that the conduct was likely to be harmful to the health or well-being of another person.”

- **Standardizes donor liability exposure. You or your legal counsel do not need to investigate liability laws in 50 states.**

Recommended Reading

Informational Resources

The Natural Resources Defense Council: “Wasted: How America Is Losing Up to 40 Percent of Its Food from Farm to Fork to Landfill”

<https://www.nrdc.org/sites/default/files/wasted-food-IP.pdf>

Hunger Free Vermont: “What Is the Issue? Hunger in Vermont”

<http://www.hungerfreevt.org/learn/what-is-the-issue>

The Public Health Law Center: “Liability Protection for Food Donation”

<http://publichealthlawcenter.org/sites/default/files/resources/Liability%20Protection%20Food%20Donation.pdf>

Food Rescue in the News

NPR: “This is What a Feast for 5,000 Made from Food Waste Looks Like”

<http://www.npr.org/sections/thesalt/2016/05/19/478410252/this-is-what-a-feast-for-5-000-made-from-food-waste-looks-like>

National Geographic: “Rescuing Rejected Food to Feed the Hungry at the U.S.-Mexico Border”

<http://theplate.nationalgeographic.com/2016/02/24/rescuing-rejected-food-to-feed-the-hungry-at-the-u-s-mexico-border/>

Last Week Tonight: “Food Waste” episode

<https://www.youtube.com/watch?v=i8xwLWb0ILY>

New York Times: “Food Waste is Becoming Serious Economic and Environmental Issue, Report Says”

<http://www.nytimes.com/2015/02/26/us/food-waste-is-becoming-serious-economic-and-environmental-issue-report-says.html>

Bibliography

- “Chow Match.” 2016. Accessed May 22. <http://www.chowmatch.org/>.
- “City Harvest - Rescuing Food for New York’s Hungry.” 2016. Accessed May 22. <http://www.cityharvest.org/>.
- “DC Central Kitchen.” 2016. Accessed May 22. <http://dcentralkitchen.org/>.
- “Denver Food Rescue - Bike Powered Just-in-Time Food Rescue in Denver, Colorado.” 2016. *Denver Food Rescue*. Accessed May 22. <http://denverfoodrescue.org>.
- Do Something, and NSW Environment Protection Authority. 2012. “Food Donation Toolkit.” <http://www.foodwise.com.au/wp-content/uploads/2012/09/DoSomething-Food-Donation-Toolkit.pdf>.
- “Food Donation Guidance.” 2016. *RecyclingWorks Massachusetts*. Accessed May 22. <http://recyclingworksma.com/donate/>.
- Frasz, D, H Morris, R Abbe, M Mourad, and E Rehberger. 2015. “Food Rescue Services, Barriers, and Recommendations in Santa Clara County.” Food Shift. <https://www.sccgov.org/sites/rwr/rwrc/Documents/FoodShiftFinalReport.pdf>.
- Gunders, D. 2012. “Wasted: How America Is Losing Up to 40 Percent of Its Food from Farm to Fork to Landfill.” Natural Resources Defense Council. <https://www.nrdc.org/sites/default/files/wasted-food-IP.pdf>.
- “Home.” 2016. *Vermont Foodbank*. Accessed May 22. <https://www.vtfoodbank.org/>.
- “Home.” 2016. *Move For Hunger*. Accessed May 22. <https://moveforhunger.org/>.
- “Home | Agency of Natural Resources.” 2016. Accessed May 22. <http://anr.vermont.gov/index.php>.
- “Keep Austin Fed | Sharing Nutritious Food with Our Hungry Neighbors.” 2016. Accessed May 22. <http://keepaustinfed.org/>.
- “Keeping Wholesome Food from Going to Waste and Delivering It to Our Neighbors in Need | Willing Hands.” 2016. Accessed May 22. <http://www.willinghands.org/>.
- Last Week Tonight. 2016. *Last Week Tonight with John Oliver: Food Waste (HBO)*. Accessed May 22. <https://www.youtube.com/watch?v=i8xwLWb0ILY>.

- Mourad, M. 2015. "France Moves Toward a National Policy Against Food Waste." Natural Resources Defense Council.
- Nixon, Ron. 2015. "Food Waste Is Becoming Serious Economic and Environmental Issue, Report Says." *The New York Times*, February 25.
<http://www.nytimes.com/2015/02/26/us/food-waste-is-becoming-serious-economic-and-environmental-issue-report-says.html>.
- Papargyropoulou, Effie, Rodrigo Lozano, Julia K. Steinberger, Nigel Wright, and Zaini bin Ujang. 2014. "The Food Waste Hierarchy as a Framework for the Management of Food Surplus and Food Waste." *Journal of Cleaner Production* 76 (August): 106–15.
- "Protecting Our Food Partners." 2016. *Feeding America*. Accessed May 22.
<http://www.feedingamerica.org/ways-to-give/give-food/become-a-product-partner/protecting-our-food-partners.html>.
- Public Health Law Center. n.d. "Liability Protection for Food Donation." <http://publichealthlawcenter.org/sites/default/files/resources/Liability%20Protection%20Food%20Donation.pdf>.
- Rabbitt, Alisha Coleman-Jensen, Christian Gregory, Matthew. 2016. "USDA Economic Research Service - Definitions of Food Security." Accessed May 22.
<http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security.aspx>.
- "Rescuing Rejected Food to Feed the Hungry at the U.S.-Mexico Border | The Plate." 2016. February 24. <http://theplate.nationalgeographic.com/2016/02/24/rescuing-rejected-food-to-feed-the-hungry-at-the-u-s-mexico-border/>.
- "Salvation Farms - Reducing Vermont's Dependency on Food From Afar." 2016. Accessed May 22. <http://www.salvationfarms.org/>.
- "The Campus Kitchens Project." 2016. Accessed May 22.
<http://www.campuskitchens.org/>.
- "This Is What A Feast For 5,000 Made From Food Waste Looks Like." 2016. *NPR.org*. Accessed May 22.
<http://www.npr.org/sections/thesalt/2016/05/19/478410252/this-is-what-a-feast-for-5-000-made-from-food-waste-looks-like>.

“Vermont Farm to Plate Strategic Plan.” 2016. *Vermont Farm to Plate*. Accessed May 22. <http://www.vtfarmtoplate.com/plan/>.

“Vermont’s Universal Recycling Law | Department of Environmental Conservation.” 2016. Accessed May 22. <http://dec.vermont.gov/waste-management/solid/universal-recycling>.

“Waste No Food.” 2016. Accessed May 22. <http://wastenofood.org/>.

“What Is the Issue? Hunger in Vermont.” 2016. Accessed May 22. <http://www.hungerfreevt.org/learn/what-is-the-issue>.

“White Pony Express | Relaying Food and Goods to Those in Need in Contra Costa County.” 2016. Accessed May 22. <http://www.whiteponyexpress.org/>.

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