

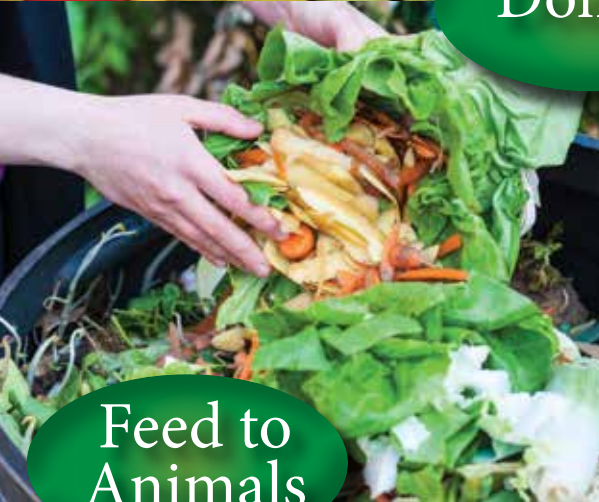
# Managing Food Waste in NM Restaurants

Reduce



REDUCE  
FOOD  
WASTE

Donate



Feed to  
Animals



Compost



**40% of food is wasted from  
production to plate**

**Around the world, 40% of land  
and 70% of fresh water is used to  
produce food**

**About 15% of American households  
are at risk of hunger**

**Every week, nearly 40,000 New  
Mexicans seek food assistance**

## **Managing Food Waste in NM**

**A Resource For Restaurants**

**Information Compiled by the NM Recycling Coalition**



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### **Online Resources Used to Create this Publication:**

- EPA [www.epa.gov/foodrecovery/](http://www.epa.gov/foodrecovery/)
- Feeding America [www.feedingamerica.org](http://www.feedingamerica.org)
- Food to Donate [www.foodtodonate.com](http://www.foodtodonate.com)
- Food Waste Reduction Alliance: A Partnership of the Food Marketing Institute, National Restaurant Association and the Grocery Manufacturers Association [www.foodwastealliance.org](http://www.foodwastealliance.org)
- NRDC Issue Paper on Food Waste [www.nrdc.org/food/wasted-food.asp](http://www.nrdc.org/food/wasted-food.asp)
- New Mexico Association of Food Banks [www.nmfoodbanks.org](http://www.nmfoodbanks.org)
- Roadrunner Food Bank of New Mexico [www.rrfb.org](http://www.rrfb.org)

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**[www.RecycleNewMexico.com](http://www.RecycleNewMexico.com)**

**November 2014**



## Why Managing Food Waste is Critical

An astonishing 40% of food is wasted in the United States each year at an annual cost of \$100 billion (US Department of Agriculture). Almost 15% of American households are suffering from hunger. Hungry people do not always know where their next meal will come from and 50 million people do not have access to enough food.

A movement has launched with the intent to manage food waste with best management practices to reduce waste, feed the hungry, feed animals, and create a nutrient rich soil amendment through the composting process. These practices have been raised to a national priority by the US Department of Agriculture (USDA) and the US Environmental Protection Agency (EPA). Both entities have designated wise food waste management as one of their top priorities in 2014. National organizations, such as the National Restaurant Association, Grocery Manufacturers Association, and the Food Marketing Institute have set their own goals to create educational materials to reduce food waste. Corporations and businesses around the US, such as Walmart, prioritize the management of food waste first for donation and then for composting. In fact, Walmart is one of the largest food donors in the US.

**20 Pounds of Food Per Month  
Per Person Gets Wasted**

Food represents 14.5% of the waste stream in America (EPA). From an environmental perspective, organic materials, of which food waste is a significant component, disposed of in landfills generate methane, a greenhouse gas that is twenty-one times more potent than carbon monoxide. Additionally, 13% of greenhouse gases in the US are associated with growing, manufacturing, transporting, and disposing of food.

This resource guide, created with funding from a Walmart State Giving Grant, is targeting businesses that produce, prepare, or sell food in New Mexico. This guide includes tools to wisely and safely divert food waste for greater, beneficial use. The NM Recycling Coalition and the NM Organics Recycling Organization are committed to diverting organic materials, to include food waste, from our landfills and increasing access to educational information, training materials and advocacy.

The EPA defines food waste as “any food substance, raw or cooked, which is discarded or intended or required to be discarded. Food wastes are the organic discards generated by the handling, storage, sale, preparation, cooking and serving of foods.”

## Why It's Good to Divert Food Waste

### Social Benefits:

- Assisting the Hungry
- Less Wasted Food
- Staff Pride of Food Diversion Efforts

### Environmental Benefits:

- Less Food Sent to Landfills
- Reducing Food Waste at the Source
- Building Healthy Soils with Compost
- Less Methane Generated From Food in Landfills
- Conservation of Land & Water

### Economic Benefits:

- Possibility of Lowered Disposal Costs
- Decreased Over-Purchasing
- Tax Deduction for Food Donation
- Positive Environmental Image and Commitment

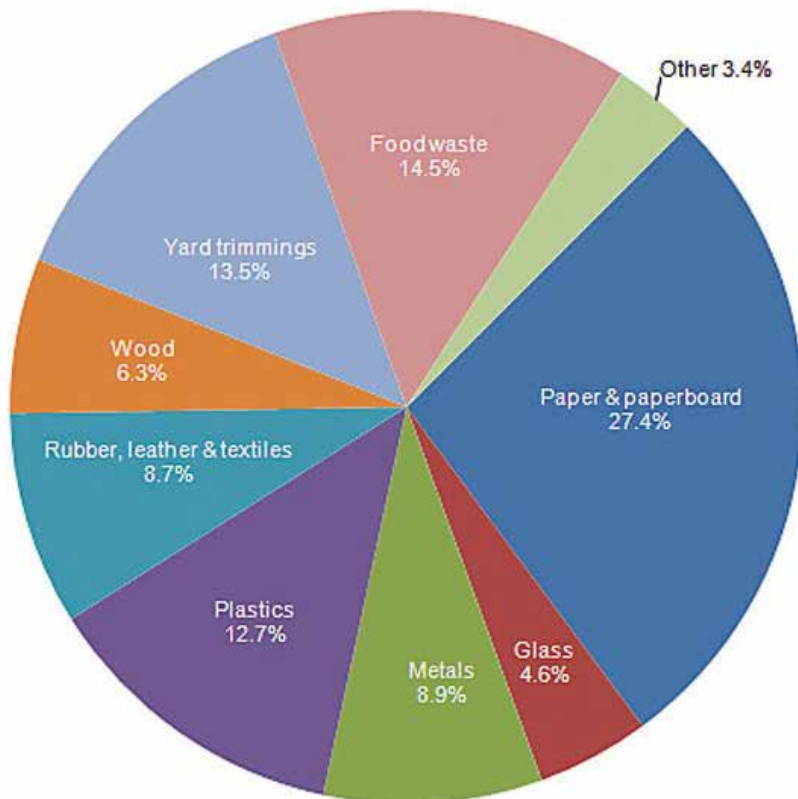
The future of organics and food management in the business environment will most likely include local or state level guidance on food scrap management. Two states, Vermont and Connecticut, have passed legislation requiring food waste recycling. On the city level, New York City, San Francisco, Portland, Austin and Seattle have passed local ordinances requiring diversion from larger producers of food waste.

**A Food Waste Diversion Program  
Will Need to Plan for Time, Cost,  
Space Needed and Staff Training**

# The Facts About Food Waste

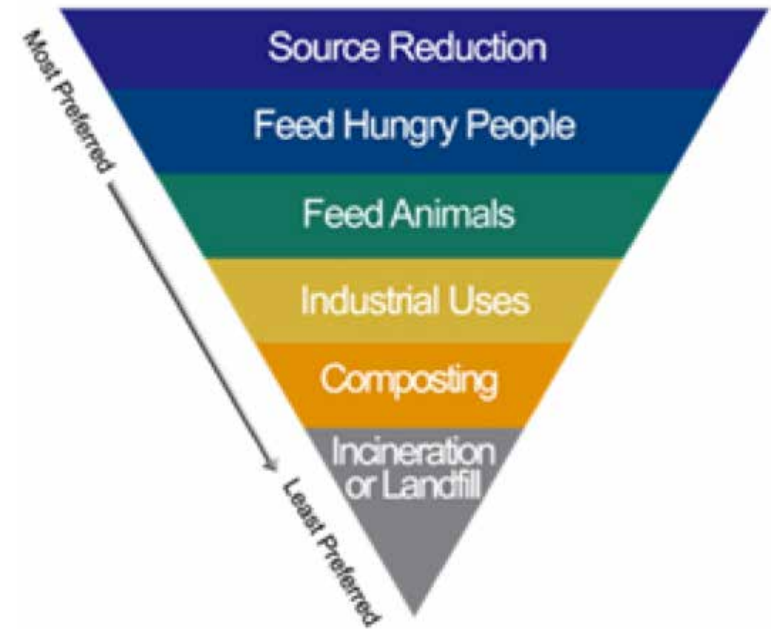
According to EPA statistics from 2012, almost 15% of the waste stream is food waste, second only to paper and cardboard items. Yet, only 3% of food waste is recovered. Since this category has been tracked, the percentage has increased yearly. Working to change the tide on this statistic will ensure less food is wasted in the first place, more people can be fed, and what is left-over can be used as animal feed or to enrich our soils as compost.

**Figure 5. Total MSW Generation (by material), 2012  
251 Million Tons (before recycling)**



Source: US EPA Municipal Solid Waste Stream

## Food Recovery Hierarchy



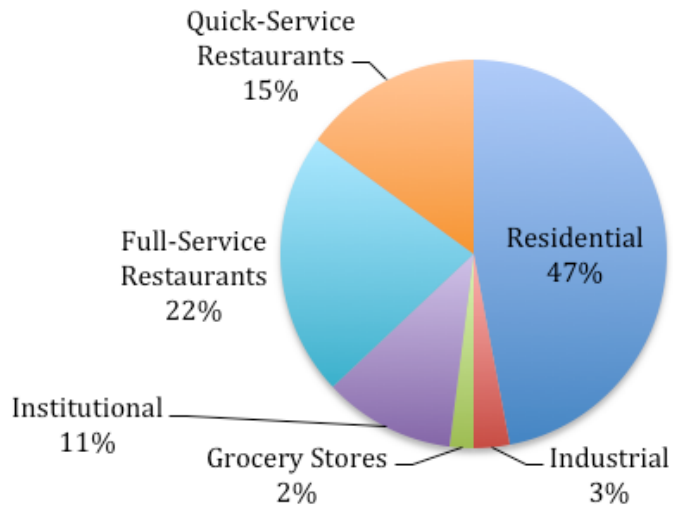
Source: US Environmental Protection Agency

The EPA has established a hierarchy (shown above) to provide guidance on how best to recover food waste for the greatest value. The most preferred method is source reduction, which prevents waste before it is created. The least preferable is incineration or landfill.

This guide will provide resources on four opportunities to manage food to decrease the generation of waste:

- **Food Waste Reduction (Source Reduction):** Tactics outlining how to reduce food waste generation
- **Food Donation (Feed Hungry People):** Best practices to donate food to local food banks
- **Animal Feed (Feed Animals):** Guidelines on diverting food waste for use as animal feed
- **Composting:** An option for setting aside food waste for composting

## Food Waste Sector Percentages



Source: Food Waste Reduction Alliance, "Best Practices & Emerging Solutions Toolkit", Spring 2014

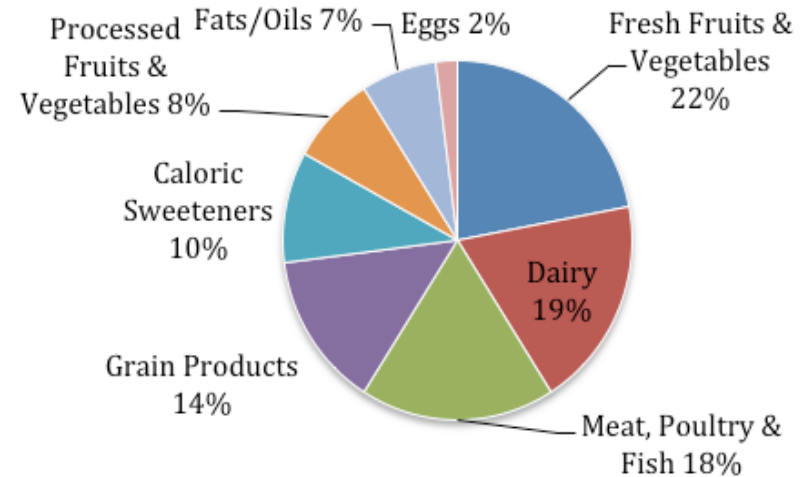


The Food Waste Reduction Alliance (FWRA), comprising the Food Marketing Institute, Grocery Manufacturers Association and the National Restaurant Association, released a document entitled, "Best Practices and Emerging Solutions Toolkit" in the Spring of 2014. The Alliance was formed in 2011 with the goal to increase donations to food banks and decrease the amount of food sent to landfills.

The FWRA commissioned a study by the consulting firm BSR to identify the amount of food being wasted and from what sector that food waste was being generated. The largest sector generating food waste was residential with almost half the food waste coming from households (47%). The second largest food waste generator sector is restaurants (37%), followed by the institutional sector (11%), which represents hospitals, schools and hotels.

Another study found the different types of food that are lost. Fresh fruit and vegetables were the primary class that saw the most waste with 22% of loss. This category was then followed by dairy (19%), meat, poultry and fish (18%) and then grain products.

## Total Food Loss From Retail, Food Service and Households



Source: Journal of Consumer Affairs, Fall 2011, 492-515

# How to Reduce Food Waste

Many entities can reduce waste with a variety of source reduction tactics. By carefully watching what gets consumed, a food-handling business can sculpt its purchasing habits to remain prepared for its customers and reduce wasted food.

## An Initial Step For Any Food Waste Management Program Is To Know What You Are Throwing Away

## Food Waste Assessment

- Establish a baseline for measurement and know what kind of food materials your establishment is regularly disposing of.
- Start a waste log for assessment. Available at [www.epa.gov/epawaste/conserve/pubs/food-waste-log.pdf](http://www.epa.gov/epawaste/conserve/pubs/food-waste-log.pdf)

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## Kitchen Best Practices for Food Waste Reduction

Best practice sources for the following sections: NRDC Issue Paper, “Wasted: How America is Losing Up To 40% of Its Food From Farm to Fork to Landfill,” August 2012; US EPA Food Reduction and Prevention: [www.epa.gov/foodrecovery/fd-reduce.htm](http://www.epa.gov/foodrecovery/fd-reduce.htm); EPA Region 6 Food Waste Reduction Resources.

## Adjust Purchasing Habits

Purchasing policies, just-in-time ordering systems and internal guidelines will assist in the reduction of food over-purchasing. After conducting an initial waste assessment, adjust purchasing accordingly.

## Cut Back On Food Prep Scraps and Improperly Cooked Food

Initiate staff training on proper knife skills, purchase pre-cut food, and reduce re-heating batch sizes for foods such as soups and sauces. Provide consistent training on proper cooking times and temperatures, food safety and handling practices in order to reduce food waste.

## Reuse in the Kitchen

Many food items can be safely reused: create croutons out of leftover bread, rice can become fried rice, leftover fruit can top a dessert, and vegetable trimmings can be used for soups, sauces and stock.

## Food Safety and Storage

Reinforce the importance of maintaining proper storage temperatures. Use older products first and ensure there is a storage system in place that activates this practice.

## Prepared Food Management

Allow prepared foods, such as prepared deli items and roasted chicken, to run out close to closing rather than cooking or preparing a new batch.

## Donate To Your Local Food Bank

Retailers have been quite successful in New Mexico working with their local food bank to divert a significant amount of valuable food items to those in need. Benefits include tax deductions, increased employee morale, positive customer satisfaction, and less waste disposal, that may reduce overall monthly trash expenses.



## **Produce Storage Tips**

Provide customers with tips on how best to store fresh produce to maximize life span.

## **PLATE**

### **Watch Customer's Plates**

What plates are most often ordered? What orders are being sent back? What menu items have uneaten food remaining? With this information, menus and portions can be modified.

### **Pay Attention to Serving Sizes and Garnishes**

Ensure that garnishes are edible and are being consumed. Consider scoop and serving size to ensure customers are satisfied, but waste less.

### **Matching Appetites**

Encourage guests at buffets to take only what they are hungry for and provide smaller plates to encourage food portion management.

### **Sides – Ask First**

Institute an “ask first” policy for the service of sides. Many customers are not able to eat a full entree serving as well as a side of fries.

### **Downsize Menu Offerings**

Expansive menus mean that a larger variety of food items must be ready for preparation. Downsizing the menu to target the most popular items can reduce food waste.

## **Menu Ideas To Reduce Waste**

**Sides Must Be Requested**  
**Offer Small or Large Portion Options**  
**Downsize Number of Offerings**  
**Encourage Take Home**

## **Encourage Take Home**

Provide readily recyclable or low-impact take-out containers (aluminum foil, 100% paper product) so guests can take left-overs home.

### **Smaller Plates**

The surface area of the average dinner plate increased by 36% between the years 1960 and 2007. Switching to smaller plates helps control portion sizes.

### **Remove Trays**

In a study by food services provider Aramark, it was found that less food was wasted (by up to 25-30%) when trays were not offered on buffets.

### **Find Food Waste Assessment Tools Online:**

[www.epa.gov/waste/consERVE/foodwaste/tools/index.htm](http://www.epa.gov/waste/consERVE/foodwaste/tools/index.htm)



The dinner plate has increased by 36% in the past 50 years. Consider using smaller plates to control portion sizes.

# Donating Excess Food Waste to Serve the Hungry

In a study conducted in 2010 by the NM Association of Food Banks entitled “Hunger in New Mexico”, it was found to be a myth that the only people seeking food assistance are without work or homeless. The study found that 32% of households seeking emergency food assistance included at least one employed adult and that only 8% seeking help were homeless.

According to the U.S. Department of Agriculture, almost 15 percent of American households do not get enough food to live active, healthy lifestyles. With proper planning, we can all work together to reduce hunger in our nation and reduce the amount of food we throw away!

The “Hunger in New Mexico” report also found that every week, close to 40,000 New Mexicans seek food assistance. That is roughly the size of Farmington, NM needing emergency help with a basic necessity such as food. By working with your local food bank you will be able to donate both non-perishable and perishable food items. The food bank will require that your donation be of a certain quantity in order to assure collection and distribution efficiencies.

Food banks have the ability to consolidate donated food in mass quantities. They then serve as a distributor providing food to local feeding agencies where the food is then distributed to those in need. Through the network of partner agencies that includes food pantries, soup kitchens and other meal programs, hungry people can access food even

## Reasons Your Business Should Donate Food:

**Economic Benefits with Reduced Trash Disposal**

**Social Benefits By Supporting Those In Need & Employee Satisfaction**

**Tax Benefits**

in remote locations in our vast state. When working with any hunger relief organization or program be sure to ask questions about how best to ensure food safety on both your side as well as the organization receiving your gift of food.

## Your Business Is Protected From Liability

In 1996, the Bill Emerson Good Samaritan Food Donation Act was signed into law to encourage donation of food and grocery products to non-profit hunger relief organizations for distribution to individuals and families in need.

Feeding America is one of the key nonprofit organizations in regard to food donation in the nation and they have summarized the act's benefits:

- Protects your business from liability when you donate to a non-profit hunger relief organization;
- Protects your business from civil and criminal liability when the product has been donated in good faith;
- Standardizes nationwide the definition and guidelines of donor liability exposure; and

## Can You Donate This? Yes!

- A large restaurant, hotel or event venue prepares food for an event. A significant amount of the prepared food is not served. This food can be donated if properly labeled, stored and then chilled/frozen.
- A pizza delivery/restaurant throws out 100 pizzas a week because customers do not pick up their order, the wrong toppings were placed on an order, etc. The pizza is handled under safe conditions and promptly labeled, stored and frozen. A local food bank or their partner agency can make a regular pick-up of these pizzas.
- A large facility cafeteria has a combination of both non-perishable and perishable items that can be donated.
- A restaurant makes a huge batch of beans. Safe conditions and ingredients are observed, but the chef has deemed the batch will not be given to customers as the taste is not to his/her standards. The batch can be labeled, properly stored and frozen for donation.
- Contact Julie Anderson at the Roadrunner Food Bank to be partnered with a local feeding agency, 505-349-8933 or [julie@rrfb.org](mailto:julie@rrfb.org).



- Provides definition of “gross negligence” or intentional misconduct for persons who donate grocery products. Gross negligence is defined in the act as “voluntary and conscious conduct by a person with knowledge (at the time of conduct) that the conduct is likely to be harmful to the health or well-being of another person.”
- New Mexico has a complementary act entitled New Mexico Food Donors Liability Act 41-10 NMSA.

#### Online Resources:

- Feeding America: [www.feedingamerica.org/get-involved/corporate-opportunities/become-a-partner/become-a-product-partner/protecting-our-food-partners.aspx](http://www.feedingamerica.org/get-involved/corporate-opportunities/become-a-partner/become-a-product-partner/protecting-our-food-partners.aspx)
- Roadrunner Food Bank: [www.rrfb.org/legal](http://www.rrfb.org/legal)

## Tax Benefits

Currently, C Corporations are able to take a tax deduction for donating fit and wholesome food to a qualified 501c3 nonprofit organization. Section 170e3 of the Internal Revenue Code was created outlining this deduction as a manner of donating surplus property. With a donation receipt from a feeding agency, food donors can take a tax deduction of one-half of the donated food’s appreciated value, with the limitation that the total deduction cannot exceed twice the donated food’s basis of cost. Be aware that the non-profit feeding partner is not able to place a value on the donated items, but will provide the number of pounds donated. An internal tracking system of your donated food items and their value will need to be developed. Your local feeding agency or tax consultant can provide further guidance.

As of September 2014, the law for non-C Corporations to be allowed a tax deduction for food donation has not yet been renewed. Traditionally, this law has been retroactively extended. Please seek advice from your tax or financial advisor on the status of this deduction.

## Feeding America’s Sample Deduction Calculation

The food donation is calculated by taking the sum of one-half of the unrealized appreciation (market value minus cost = appreciation) plus the cost, but not in excess of twice the cost of the contributed item.

#### Example:

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

**Total nonprofit tax deduction:.....\$2.00**

**Online Resource:** [www.feedingamerica.org/get-involved/corporate-opportunities/become-a-partner/become-a-product-partner/tax-benefits-for-your-company.aspx](http://www.feedingamerica.org/get-involved/corporate-opportunities/become-a-partner/become-a-product-partner/tax-benefits-for-your-company.aspx)

## Two Kinds of Food Donor Agencies:

1. Food Bank: This entity is a large-scale warehouse of food items, working with corporate food entities that produce larger amounts of food and establish a regular collection schedule. The food bank then sorts, inventories, and stores the food in a warehouse. From there the food is re-distributed to feeding agencies around the region or state that consist of food pantries, soup kitchens and other hunger programs. Food banks tend to collect less perishable food items that can be stored for longer periods of time. Food banks primarily do not serve as the actual site where clients come to receive food to take home to prepare or receive a meal. [www.nmfoodbanks.org](http://www.nmfoodbanks.org)
2. Partner Agencies or Feeding Programs: These are local entities that directly feed hungry people, either in the form of a food pantry, soup kitchen, youth or senior centers, shelter or home delivery service. Many of these entities receive food directly from the regional food bank. They also may work directly with local restaurants, stores or cafeterias. To find a local program go to [www.nmfoodbanks.org](http://www.nmfoodbanks.org). Click on “Find Assistance” on the left-hand column and search for a local hunger relief organization by zip code. There are more than 500 hunger programs that receive food from a food bank to distribute to hungry people in communities across the state.

When working with a food bank or feeding agency, always ask questions about their operations to ensure they are working within all the guidelines of safe food handling and storage.

## Large Facility Cafeterias, Large Scale Public Events and Sporting Events:

There may be opportunities for facilities with larger volumes of food items and prepared foods to donate excess food that is unsold. First, reach out to the local food bank to seek guidance. The food bank staff often has the best knowledge of which of their partner agencies has the ability to participate in rescuing food product after the event is over. The food bank knows the agency's dry and cold storage capabilities and if they have the proper vehicle to pick up and transport the food donation at the proper temperatures. Setting up a meeting well in advance of the event will help everyone involved prepare for the safe handling of the food and to facilitate the actual pickup of the donated food.

**Restaurants and Hotels:** Food banks typically work with larger-volume donations. There remains a potential for a restaurant that may host a special event or provides catering and has prepared foods left over to donate. Other situations could be large batches of food types that are not served and can be frozen until donation pickup. Work with your local food bank or feeding agency to find out which food items can maintain safe food handling procedures and what food items can be donated.

## Donating Prepared Foods From A Restaurant

A helpful resource for restauranteers is an online guide called "Food Donation: A Restaurateur's Guide", produced by the National Restaurant Association and USDA. [infohouse.p2ric.org/ref/12/11907.pdf](http://infohouse.p2ric.org/ref/12/11907.pdf)

Some key best practices on managing prepared foods that will be donated from a restaurant are outlined in the guide:

- Safe donation of prepared food lies in proper temperature, handling and storage time management.
- Avoid dishes that contain potentially hazardous foods that have been cooked, chilled and then reheated again, such as a meat that has been prepared more than once and ended up as stew.
- Store prepared foods ready for donation in shallow, one-time-use recyclable aluminum pans or food-grade clear plastic bags.
- By packaging donations in smaller containers, organizations receiving the food can better manage temperature and avoid any food waste when serving meals.
- Easily identified labeling and dating of donations is essential.
- Chill or freeze cold items that will not be immediately consumed.
- Do not add warm leftovers to frozen or chilled food.

- Always store donated food products in a separate, obvious location in order to avoid cross contamination.
- Do not donate food items that may have been handled by anyone other than kitchen staff.
- For hot dishes, document the time and date it was prepared, temperature cooked at and cooling time. This helps assure that dishes were cooked to a safe temperature and cooled properly.

## Labeling of Donated Foods

Requirements for labeling food depend on whether the product is in its original package or has been prepared as a meal.

- Prepared food must be labeled in English with the name of the food, the source of the food, and the date of preparation to be given as donated food. (Example: Pinto Beans-Mom's Diner-Prepared 8/1/14)
- The Fair Packaging and Labeling Act requires labels to address the presence of allergens. Discuss these requirements if donating prepared foods with your feeding agency partner.

## Understanding Product Expiration Dates

Label dates on food are generally not regulated and do not indicate food safety. Multiple dates, inconsistent usage, and lack of education around date labels may cause consumers to discard food prematurely.

"Use by" and "best by" dates are some of the most common labels used on both perishable and nonperishable products in regard to dating. These dates are the manufacturer's **suggestions** indicating what they consider peak quality of the product. The dates are not an indicator of food safety and are not regulated by the Food and Drug Administration. The only item that is federally regulated in regard to "use by" dates is infant formula. (Source: NRDC Issue Paper, "Wasted: How America Is Losing Up to 40% of its Food From Farm to Fork to Landfill," August 2012)

## Guidelines for Perishable Food Donation

Source: Feeding America

Food Products	Preferred Packaging	Storage Conditions	Non-Acceptable Conditions
<b>PREPARED FOODS</b>			
Sandwiches	Wrapped in clear plastic wrap and foil	Chilled to 40 degrees F or less	Stale/hard bread Encrusted filling
<b>BAKED GOODS</b>			
Fresh or Day Old Bread or Bagels	Keep separate from other baked goods	Cool, dry areas	Stale/hard
Muffins, Pastries, Cookies	Pack in own paper boxes avoids crumbling	Cool, dry areas	Stale/hard
<b>PREPACKAGED FOODS</b>			
Perishable	Packaged separately Securely closed	Chilled to 40 degrees F or less	Opened, punctured, bulging or damaged packaging
Non-perishable (misabeled – ok with proper notification)	Packaged separately Securely closed	Cool, dry areas	Opened, punctured, bulging or damaged packaging
<b>FROZEN</b>			
Dairy, Pastries Factory-Prepared	Packaged separately. Securely closed	Frozen to 0 degrees F or less	Defrosted, punctured, opened, or damaged packaging. No severe freezer burn
Vegetables, Meat, Poultry, Fish	Packaged separately. Securely closed	Frozen to 0 degrees F or less	Defrosted, punctured, opened, or damaged packaging. No severe freezer burn
Dairy	Individually wrapped, Clear plastic wrap	Refrigerated at all times. 40 degrees F or less	Damaged packaging
Milk	Securely closed	Refrigerated at all times. 40 degrees F or less	Damaged packaging
Meat, Poultry, Fish Fresh	Original packaging. Clear plastic wrap	Refrigerated at all times. 40 degrees F or less	Strong odor, discoloration
Frozen	Original packaging. Clear plastic wrap	Frozen at all times, 40 degrees F or less	Damaged packaging
<b>FRESH PRODUCE</b>			
Whole	Bag or carton	Cool, dry area	Significant decay
Chopped	Bag each vegetable separately	Chilled, 40 degrees or less	Color change or decay
<b>BEVERAGES</b>			
Perishable	Securely closed bag or carton	Chilled to 40 degrees or less	Alcohol not accepted
Non-Perishable	Bag or carton	Cool, dry unopened	Opened, punctured, bulging

## Feeding Food Waste to Animals

Another possibility for diverting food waste is to work with a local farmer or livestock producer to send appropriate food waste to be used as feed. There is guidance on regulations about feeding food waste to animals on both the state and federal level.

As a general rule, animal proteins are prohibited in ruminant feed (cattle, sheep, goats, deer) and are subject to prevailing federal and state regulations. These regulations are to prevent the spread of disease, such as bovine spongiform, also known as mad-cow disease.

**All plate waste must be cooked if being fed to animals per 21 CFR 589.2000 (FDA Federal Regulation) and 21.18.3.18 NMAC (NMDA New Mexico Administrative Code).**

### Feeding Food Waste to Pigs

The most common form of food waste to animal feed in New Mexico is working with a local pig farmer. If a pig farmer is using food waste as animal feed, known in the trade as “garbage feeding,” the US Department of Agriculture (USDA) federal regulation, Federal Swine Health Protection Act, requires those farmers or facilities who will be boiling the food before consumption to attain a “garbage feeding” license.

In order to ensure health and safety for the pig population and proper treatment to inactivate disease, food waste must be heated throughout to a boil (212 degrees Fahrenheit) for 30 minutes before feeding to swine. For more information on best practices managing food waste to be fed to swine, please refer to the act or local USDA office.

Online USDA federal regulation for preparing food scraps to feed to pigs: [http://www.aphis.usda.gov/animal\\_health/animal\\_dis\\_spec/swine/downloads/interim\\_rule\\_pro-products.pdf](http://www.aphis.usda.gov/animal_health/animal_dis_spec/swine/downloads/interim_rule_pro-products.pdf)

For more information or to license “garbage feeding” at a pig farm (no matter how many pigs), please contact the USDA Animal and Plant Health Inspection Services (APHIS) Veterinary Services department.



## Benefits and Challenges

- Ensure regular collections
- If the farmer is coming for pick-up, ensure farm staff is trained on proper clothing and clean shoes if entering the facility to pick-up containers
- Have a back-up plan for managing food waste when majority of pigs have been butchered and farmer takes a short break from regular pick-ups

## Other Opportunities

There are state and federal guidelines on feeding food waste in regard to other types of livestock and have strict guidelines. Contact the NM Department of Agriculture at 575-646-3107 as the first step, if feeding to livestock other than swine is considered.

## Contacts:

**Swine Feeding:** USDA Animal and Plant Health Inspection Services (APHIS) Veterinary Services department at 505-761-3160.

**Commercial Animal Feeding:** New Mexico Department of Agriculture, Agricultural and Environmental Services Division, Feed, Seed, and Fertilizer Section, 575-646-3107.

**Before working with a farmer to provide food waste to animals, first ask for their “Garbage Feeding” license. If there are any questions about licensing, contact the USDA Veterinary Services Department or NM Department of Agriculture.**

## Feeding Food Waste to Animals Links & Resources:

EPA's Animal Feed website with information on best practices and case studies of successful projects: [www.epa.gov/foodrecovery/fd-animals.htm](http://www.epa.gov/foodrecovery/fd-animals.htm)

Swine Health Protection Act: [www.gpo.gov/fdsys/pkg/CFR-2002-title9-vol1/pdf/CFR-2002-title9-vol1-part166-toc-id1321.pdf](http://www.gpo.gov/fdsys/pkg/CFR-2002-title9-vol1/pdf/CFR-2002-title9-vol1-part166-toc-id1321.pdf)

FDA Mad-Cow Disease (BSE) Rule and Information: [www.fda.gov/AnimalVeterinary/GuidanceComplianceEnforcement/ComplianceEnforcement/BovineSpongiformEncephalopathy/default.htm](http://www.fda.gov/AnimalVeterinary/GuidanceComplianceEnforcement/ComplianceEnforcement/BovineSpongiformEncephalopathy/default.htm)

Federal Guidelines On Animal Proteins Prohibited from Ruminant Feed: [www.gpo.gov/fdsys/pkg/CFR-2013-title21-vol6/xml/CFR-2013-title21-vol6-sec589-2000.xml](http://www.gpo.gov/fdsys/pkg/CFR-2013-title21-vol6/xml/CFR-2013-title21-vol6-sec589-2000.xml)

Federal Guidelines on Cattle Materials Prohibited From Animal Food or Feed to Prevent the Transmission of Bovine Spongiform: [www.gpo.gov/fdsys/pkg/CFR-2013-title21-vol6/xml/CFR-2013-title21-vol6-sec589-2001.xml](http://www.gpo.gov/fdsys/pkg/CFR-2013-title21-vol6/xml/CFR-2013-title21-vol6-sec589-2001.xml)

New Mexico Department of Agriculture Commercial Feed Program: [www.nmda.nmsu.edu/fsf/commercial-feed-program/](http://www.nmda.nmsu.edu/fsf/commercial-feed-program/)

New Mexico Department of Agriculture Commercial Feed Act: [www.nmda.nmsu.edu/wp-content/uploads/2013/10/New-Mexico-Commercial-Feed-Act.pdf](http://www.nmda.nmsu.edu/wp-content/uploads/2013/10/New-Mexico-Commercial-Feed-Act.pdf)

New Mexico Administrative Code Feed: [www.nmda.nmsu.edu/wp-content/uploads/2013/10/New-Mexico-Administrative-Code-Feed.pdf](http://www.nmda.nmsu.edu/wp-content/uploads/2013/10/New-Mexico-Administrative-Code-Feed.pdf)



## Diverting Food Waste for Composting

Once all appropriate food has been donated, a food-generating facility can set aside food wastes for compost.

### The Value of Composting

- Compost saves water needed to grow food
- Reduces the need for fertilizers and pesticides
- Promotes a healthy agricultural system
- Closes the circle: uses food waste to create nutrient-rich soil amendments, which in turn grow healthy food
- Reduces methane and leachate formation in landfills

**Food waste in landfills generate the release of methane, a potent greenhouse gas. By diverting food waste and composting, methane generation is greatly reduced.**

### Ease of Diversion

Compost collection containers placed at convenient locations throughout your prep and dishwashing areas will make collecting food waste easier. If appropriate and you are working with a commercial large-scale composter, switching disposable service ware to biodegradable service ware reduces possible contamination and increases the number of items allowed in the food waste mix. Soiled or wet paper products, as well as waxed cardboard, can be acceptable in food waste collection containers that end up being processed at a large-scale composter. Check with your local composting collections partner for an acceptable item list allowed in compost collections.

## Working with a Local Compost Collection Service

As of 2014, there were only two food waste collection service providers in the state: one located in Albuquerque and the other in Santa Fe. These businesses can advise on food waste collection best practices and help assess how many containers and what number of pick-ups will be right for the amount of materials generated. Generally, 64-gallon wheeled and covered collection containers are provided as part of the service.

### The Grove Cafe and Market Case Study

Jason Greene, owner and chef of The Grove Cafe and Market in Albuquerque, has set the standard at his restaurant to recycle and compost everything possible. Jason explained that setting aside food waste was part of his training in culinary school in Vermont and he believes in the value of supporting healthy soils with the compost made from food waste. The Grove has reduced trash pick-ups and hopes to continue reducing his landfilled materials. The restaurant recycles cardboard, glass, plastics and paper. All service ware is made from certified biodegradable materials and can be placed in the compost collection containers. Soiled paper and waxed cardboard is added to the mix. Small five-gallon buckets are placed conveniently throughout the prep areas and at the dishwasher station. Once full or at the end of the day, the five-gallon buckets are emptied to the outside 64-gallon covered compost collection totes. Staff is trained that this is the culture of working at The Grove. In order to minimize odor and fly issues, the garbage and compost collection areas outside are regularly power washed and fly traps are in place. The only items left in the trash are plastic wrap, lids from cups, plastic food packaging and plastic from shipping containers. Jason is happy to speak with any restaurant interested in starting a food waste for composting program:

**rjasongreene@gmail.com or 505-248-9800**

## Closed Loop: From Food Waste to Compost to Food Again at a Local Farm/Restaurant

Los Poblanos Historic Inn and Organic Farm in Los Ranchos de Albuquerque sits on land in a bucolic cottonwood-tree setting. The historic inn and farm runs a multi-faceted business as a resort, restaurant, special events location and working fields to grow lavender and farm-to-table produce. Nancy Kinyanjui, Director of Hospitality and Sustainability, explains that managing food waste and other green initiatives has generally been easy, but has just taken a little creativity. The restaurant and special events kitchen separates food items for compost at prep and dishwashing stations. From there staff deliver the materials to their own compost piles. In the composting area, the piles are managed by adding new compost to active ones. They allow the others to mature into a rich soil amendment that will be used in their robust kitchen garden. This closed loop represents the true potential where the food waste becomes an enrichment to the next round of food grown onsite. In the kitchen, there are two diversion pails being used: one for the food waste compost pile and the other for vegetable trimmings that become a rich soup stock. Other source reduction tactics include making jams and jellies from bruised fruits and working with restaurant customers to reduce and limit their meal portions when they order.

### Hauling Food Waste To A Composter

There is an option to haul food waste to a commercial composting facility in Albuquerque and Santa Fe. Observing best practices for on-site collections and using appropriate containers to retain all liquids and materials will still be necessary. Work with the local composter to establish the “tipping” or disposal fees and assess the materials accepted so the material can be properly managed.

**Business Opportunity:** As of the date of this report, there are currently only two food waste collection businesses operating in New Mexico. An opportunity lies in the launch of more food waste collection businesses and food waste composting throughout the state.

**On average, customers leave 17% of meals uneaten and 55% of these are taken home.**

### How Food Waste Composting Works

Composting occurs when brown (woody) and green (food waste, lawn clippings) organic materials are brought together and, with the right combination of naturally-occurring bacteria and moisture break down the material components to create a nutrient-rich soil amendment. Active composting is required to manage food waste so that the material quickly decomposes. There are two types of composting used to manage food waste: large-scale and smaller, farm-style composting.

#### Large-Scale Composting

A commercial-scale composting facility is able to manage a wide array of food items, including meats, as well as paper products and waxed cardboard because the facility actively manages the compost piles with regular watering and turning of material. If the composter is accepting materials from the public, the facility must be registered with the New Mexico Environment Department (NMED).

#### Smaller, Farm-Style Composting

Smaller scale composting, such as typically occurs at local farms, uses small amounts of food waste material. These piles are mixed with woody materials and are occasionally turned or managed to keep the compost process active. In most cases, materials such as cardboard, compostable serviceware, meats and bones are not suitable under these conditions.

If a farm is managing its own materials generated on-site, the composting operation does not need to register with the NMED. If the farm is accepting food waste or woody material from outside services or a variety of restaurants that it sells produce to, that farm would need to register with NMED as a composting facility.



## Resources:

### Food Waste Collection Services

- Reunity Resources, Santa Fe, (505) 629-0836  
[www.reunityresources.com](http://www.reunityresources.com)
- Soilutions, Albuquerque, (505) 877-0220, [www.soilutions.net](http://www.soilutions.net)

### Food Waste Composting Facilities

- Albuquerque Bernalillo County Water Utility Authority, (505) 768-2800, [www.abcwua.org](http://www.abcwua.org)
- Payne's Organics Soil Yard, Santa Fe, (505) 424-0336, [www.paynes.com/organic-soil-yard/](http://www.paynes.com/organic-soil-yard/)
- Soilutions, Albuquerque, (505) 877-0220, [www.soilutions.net](http://www.soilutions.net)

### Technical Assistance & Resources for Food Waste and Composting

- NM Organics Recycling Organization, 505-238-0489
- NM Environment Department: Solid Waste Bureau, Tim Gray, 505-827-0129
- NM Department of Agriculture Fertilizers and Soil Conditioners Rules, [www.nmda.nmsu.edu/fsf/fertilizer-and-soil-conditioners/](http://www.nmda.nmsu.edu/fsf/fertilizer-and-soil-conditioners/)



The Grove Cafe and Market in Albuquerque has switched over to certified compostable serviceware and ensures quality control of these items in the compost collection containers by bussing tables for guests.

## Compost Collection Signs

Ensuring that only accepted items are collected in food waste for compost containers, clear signage and training are essential. Watching carefully to avoid contaminants ensures smooth service with your compost collection service provider.

NMRC is pleased to offer collection signs designed to suit the Albuquerque and Santa Fe markets that offer food waste composting opportunities.

Download the signs at [www.recyclenewmexico.com](http://www.recyclenewmexico.com) or request from your local compost collection service.



The sign on the left identifies acceptable items in the Albuquerque market. The sign below indicates what is acceptable in the Santa Fe market. Please work with your food waste compost collector to verify acceptable items as these may change over time.



## Food Diversion and Environmental Health Safety Practices

No matter if your business is collecting food waste for donation for human use, feeding animals, or for composting, certain standards of material management must be maintained. The primary goal in all cases is to maximize food safety for items to be donated or provided to animals and to minimize vectors and odor for items to be composted or sent out as feed.

### Safely Managing Food for Donation

Strict guidelines must be observed when handling food items to be donated to ensure the safety of those consuming the products after donation. Guidelines developed by national entities, such as Feeding America, set the standard for food safety best practices. Please reference food storage and handling guidelines in the Food Donation section.

By working closely with the local food bank, reviewing all food handling and storage requirements and best practices will be essential. Reviewing practices with your local health and environmental safety inspector is important as well if there are any questions.

### Food Donation Collection Best Practices

- Perishable food items not maintained at safe temperatures must not be donated
- Always freeze or chill prepared foods immediately if you are anticipating giving it as a donation
- Maintain separate, clean containers for all food item types to be donated
- Clear, unobstructed food labeling is essential
- Ensure all items set aside for donation are acceptable through feeding donation partner
- Regularly train staff and discuss food donation needs
- Maintain all food safety guidelines for donated foods
- Ensure no liquids leak from containers

### Storing Food Waste for Feed or Composting

In essence, food waste collected for composting or for animal feed must be managed in the same manner as trash as outlined in the US Food and Drug Administration (FDA) Food Code. Paying close attention to vector control and odor management is critical. The Food Code does not specifically address management of food waste and food donation. Guidance on refuse handling is outlined in the 2009/2013 FDA Food Code. City of Albuquerque and Bernalillo County rely on the FDA Food Code as their reference for compliance. The rest of the state is monitored for compliance by the New Mexico Environment Department, which is currently in the process of adapting their codes to align with the FDA 2013 Food Code.

### Food Waste Container Management Best Practices

- Collect food waste at locations that are convenient, such as near prep and dishwashing stations. If space allows, use 64 gallon wheeled carts. For smaller spaces 5 gallon buckets or "Slim Jim" containers work well
- Remove food waste at end of day to an outside covered food waste storage container (be aware of storage needs to discourage critters)
- Waste containers must not be used for any other purpose
- If stored in a cooler (ensure container for compost is covered, is well labeled and in a designated location)
- Rinse all collection containers between uses
- Ensure items set aside for composting match what the local composter has been registered to manage
- Provide signage of what can and cannot go into compost containers, ensuring clear, concise, bi-lingual and relevant
- Host regular staff trainings to address concerns and logistical issues - encourage staff buy-in
- Consider switching to compostable serviceware where possible. This can be added to the compost collection and may reduce contamination issues
- Work with your local composter to set a regular pick-up schedule that minimizes odor and vector nuisances
- Ensure no liquids leak from containers



## Large-Scale Special Events

- To evaluate the possibility of managing excess food for donation from large temporary events, contact your local food bank and environmental health department for guidance.
- Food waste collection for composting is another possibility and is best conducted in partnership with your local food waste collections entity to receive guidance on collection best practices (see Diverting Food Waste for Composting section).

## LOCAL ENVIRONMENTAL HEALTH CONTACTS

For more information on food safety, collection practices for donating and composting and environmental health, please contact your local inspector. Your local food bank or feeding partner will be able to advise on food donation best practices as well.

- Bernalillo County Health and Social Services, Lucas Tafoya, 505-314-0310, [ltafoya@bernco.gov](mailto:ltafoya@bernco.gov), [www.bernco.gov/HealthProtection/](http://www.bernco.gov/HealthProtection/)
- City of Albuquerque, Theresa Alling, 505-768-2643, [talling@cabq.gov](mailto:talling@cabq.gov), [www.cabq.gov/environmentalhealth](http://www.cabq.gov/environmentalhealth)
- New Mexico Environment Department (serving the rest of the state in 22 field offices), 505-222-9500, [www.nmenv.state.nm.us/fod/Food\\_Program/safety.html](http://www.nmenv.state.nm.us/fod/Food_Program/safety.html)
- NM Food Banks Association, [www.nmfoodbanks.org](http://www.nmfoodbanks.org)

## RESOURCES

- FDA Food Code online at [www.fda.gov/Food/GuidanceRegulation/RetailFoodProtection/FoodCode/](http://www.fda.gov/Food/GuidanceRegulation/RetailFoodProtection/FoodCode/)
- NMED Food Program: [www.nmenv.state.nm.us/fod/Food\\_Program/regulations.html](http://www.nmenv.state.nm.us/fod/Food_Program/regulations.html)



Above: A finished compost pile at Los Poblanos Organic Inn and Farm. Food waste from special events and the inn's restaurant are managed on the property with an active composting program. The finished compost is then used on the kitchen garden fields.





# Staff Training, Recycling & Taking the Food Waste Challenge

## Training Staff and Ensuring Smooth Collections

- Locate collection containers (a 5-gallon bucket, “Slim Jim” container or 64-gallon cart) and place in convenient locations where food is managed, e.g. prep and dishwashing stations, produce sorting
- Create clear and consistent signage for containers with images and relevant languages
- Motivate staff participation with recognition or awards
- Let staff know the importance of this practice – Establish the culture
- Ensure staff are trained on all aspects of food safety handling
- Re-train regularly, especially in high-turnover settings
- Put the organics and recycling bins to the left of the trash bin (people read left to right)

Source: EPA “Reducing Waste Food and Packaging”

## Add Recycling Collection

- A natural complement to an organics diversion program is to also recycle other materials
- Cardboard, plastic containers, aluminum and steel cans and paper can be recycled in most places around NM
- Look for a local business recycling collection service or check-in with your municipality’s solid waste program for options. An online directory can be found at: [www.recyclenewmexico.com](http://www.recyclenewmexico.com)
- By diverting both food waste and recyclables, you can reduce the number of trash pick-ups at your business!



## USDA and EPA Food Waste Challenge: Sign Up To Participate

Two federal agencies have recognized the importance of wise management of food waste, with both entities working jointly to provide educational materials, advisement and recognition through the EPA Food Waste Challenge.

### The program goals include:

- Reduce food loss and waste
- Recover wholesome food for human consumption
- Recycle discards to other uses including animal feed, composting, and energy generation
- Currently more than 200 service businesses, colleges/universities, businesses, nonprofits are enrolled
- Participants reduce as much of their food waste as possible
- Learn more and join at:

[www.epa.gov/smm/foodrecovery/joinnow.htm](http://www.epa.gov/smm/foodrecovery/joinnow.htm)

## Other Resources:

**NM Recycling Coalition:** Provides an online searchable recycling directory to locate services in your area [www.recyclenewmexico.com](http://www.recyclenewmexico.com)

**Biocycle Case Studies:** [www.biocycle.net/2012/03/14/sustainable-food-management-in-action/](http://www.biocycle.net/2012/03/14/sustainable-food-management-in-action/)

**Think Eat Save:** United Nations worldwide food waste reduction effort [www.thinkeatsave.org](http://www.thinkeatsave.org)

**Love Food, Hate Waste:** iPhone and Android app to assist with portions, shopping and recipes [www.lovefoodhatewaste.com](http://www.lovefoodhatewaste.com)

**Free Waste, Energy and Water Audits For Any NM Business:** Chris Campbell, NMSU Institute for Energy and the Environment, 505-843-4251, [chriscam@nmsu.edu](mailto:chriscam@nmsu.edu)

# Did You Know??

Uneaten food rotting in landfills represents 25% of all US methane emissions

Getting food to the table represents 10% of the US energy budget, uses 50% of US land, and 80% of fresh water

Only 2% of food waste is diverted for a beneficial use

If we could reduce food losses by 15%, we could feed 25 million hungry people in the US each year

Conserving food now and changing a culture of food waste will assist in the future as our population grows. The United Nations predicts that by 2050 we will need 70% more food produced to feed the larger population

Americans waste 50% more food now than in the 1970s

The US is number one in the amount of wasted food, followed by Australia, Denmark, Switzerland and Canada

In the US, we are throwing away \$165 billion worth of food each year, costing \$750 million for the disposal

Supermarkets lose an estimated \$15 billion each year in disposed produce

*Facts compiled from many sources by Dana Gruders, Food and Agriculture Project Scientist from the National Resources Defense Council. Check out NRDC's issue paper: "Wasted: How America Is Losing Up to 40 Percent of Its Food from Farm to Fork to Landfill," for more information.*