



Extension

**COLLEGE OF AGRICULTURAL, CONSUMER
& ENVIRONMENTAL SCIENCES**

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Food Rescue at Home

Plate it before you waste it!

What you can do to keep food out of the landfill.



What is Food Waste?

Food waste is defined as food that is **lost, discarded, or uneaten.**

Food Waste VS. Food Loss

- Food waste = Mostly in developed countries; distribution, food service and consumer levels.
- Food loss = Mostly in developing countries; harvest, handling, storage and processing levels.



Why is Reducing Wasted Food Important?

Reducing wasted food has social, environmental and economic implications.¹

- **Wasted food is a social problem:** In 2018, 11.5 percent of U.S. households were food insecure at some time during the year. That is 37 million Americans, of which 11 million are children, living in food insecure households. Wholesome, nutritious food should feed people, not landfills.
- **Wasted food is an environmental problem:** Food is the largest stream of materials in American trash. Once wasted food reaches landfills, it produces methane, a powerful greenhouse gas.
The U.S. is the leader in food waste; ~40% of all food. This number has doubled since the 1970's.²
- **Wasted food is an economic issue:** It is estimated that at the retail and consumer levels in the U.S., food loss and waste totals \$161 billion dollars.
An American family of four ends up throwing away an average of \$1,500 annually in food.

A 1987 study found that people over 65 wasted half as much food as other age groups.³

Group Discussion Question: How has your upbringing shaped your views and behaviors around food waste?

Group Discussion Question: What are some unique or unusual tips you can share to help prevent food waste at home?

By making small shifts in how we shop, store and prepare food, we can toss less, eat well, simplify our lives, save money & the valuable resources used to produce & distribute food from going to waste.

Sources:

1. United States Environmental Protection Agency. Sustainable Management of Food website.
2. USDA Office of the Chief Economist Web site. <http://www.usda.gov/oce/foodwaste/faqs.htm>
3. NRDC Issue Paper. Wasted: How America is Losing Up to 40 Percent of its Food from Farm to Fork to Landfill. August 2012. <https://www.nrdc.org/sites/default/files/wasted-food-IP.pdf>.
4. Alexander H. Reich and Jonathan A. Foley. (2014). *Food Loss and Waste in the US: The Science Behind the Supply Chain*. Issue Brief. Food Policy Research Center, University of Minnesota.
5. Academy of Nutrition and Dietetics. *Reducing Food Waste*.
6. *News Release: Grocery Industry Launches New Initiative to Reduce Consumer Confusion on Product Date Labels*. Gmaonline.org
7. Academy of Nutrition and Dietetics. *How to Keep Produce Fresh Longer*
8. National Center for Home Food Preservation. http://nchfp.uga.edu/how/freeze/dont_freeze_foods.html

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Leafy Green Vegetable Cooking Ideas

Kale and Swiss chard stems:

- Pickle stems
- Use raw in smoothies
- Sauté or braise Swiss chard stems before using in pesto or hummus, stir-fry or before roasting
- Blanch kale stems before using in pesto or hummus, stir-fry or before roasting
- Cook greens and stems separately



Romaine lettuce heart and stalks:

- Salads
- Sauté and puree in soups
- Quarter romaine head and grill

Flower Vegetable Cooking Ideas

Broccoli stalks:

- Slaws, spiral into noodles, sauté and use in veggie burgers or egg dishes

Cauliflower leaves and stems:

- Grill or pan-roast cauliflower steaks, blend in food processor to make cauliflower rice, roast leaves into chips, or use in soups and stews



Artichoke leaves:

- Bake whole artichoke or pinch off leaves, steam and then roast with olive oil and salt for chips

Squash blossoms:

- Raw in salads, sautéed, stuff with rice, cheese or herbs and fry or bake

Food Waste is the Single Largest Component Going into Municipal Landfills⁴

Annual rates and values (per capita) of combined retail and consumer food loss		
Added sweeteners	41%	\$21
Added fats and oils	38%	\$43
Dairy	31%	\$87
Grains	31%	\$36
Vegetables	30%	\$97
Fruit	29%	\$64
Eggs	28%	\$10
Meat, poultry, and fish	26%	\$157
Tree nuts and peanuts	15%	\$7

Group Discussion Question: Why do you think the **value** of wasted meat products is higher than any other category even though other categories have higher loss rates?

Possible causes for household loss:

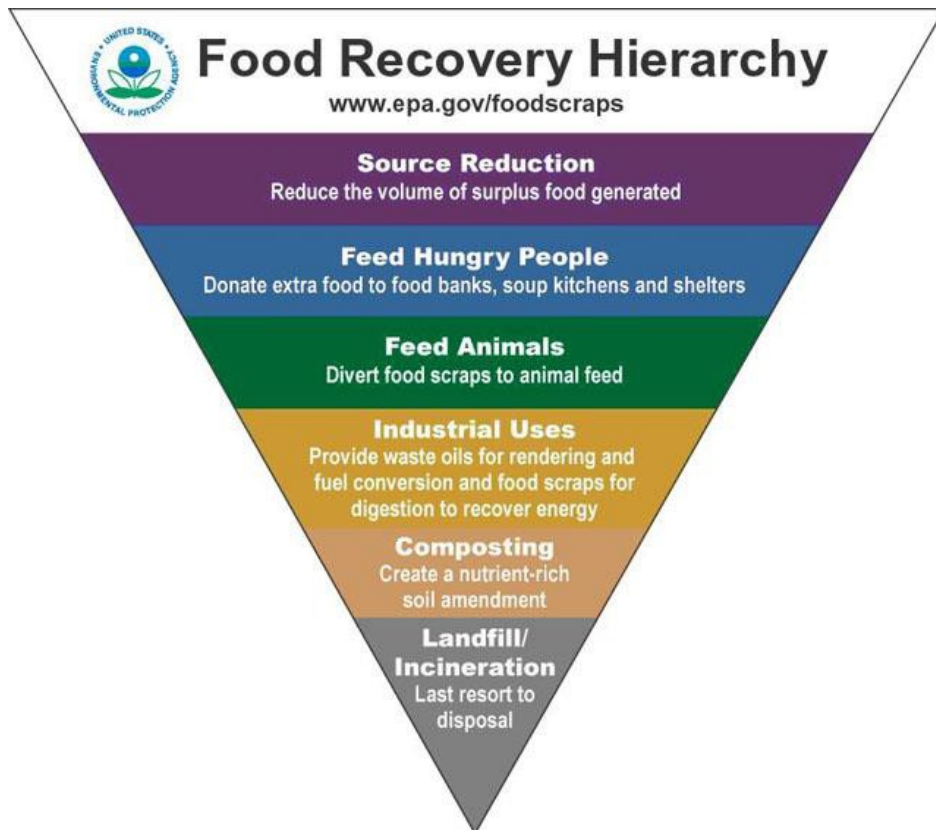
- Lack of awareness and undervaluing food.
- Confusion over date labels.
- Food spoilage due to improper storage.
- Impulse and bulk purchases.
- Poor planning and over-preparation.

Group Discussion Question: Why do you think food waste has been on the rise?

What Can We Do About It?

The Food Recovery Hierarchy was developed by the Environmental Protection Agency to help organizations and individuals prioritize diversion strategies for wasted food. The top levels are most preferred because they create the most benefits for the environment, society and the economy.

Group Discussion Question: Take a look at the different levels. What strategies do you use most often to reduce/divert food waste? If you find yourself only in the lowest level, what is something you could do in the higher levels?



Root Vegetable Cooking Ideas

Beets, Radishes and Turnip Greens:

- Sauté like you would chard or kale
- If greens are young and tender, may be consumed raw in salads
- Cook greens and bulbs separately
- Use in soups, pesto or chimichurri, egg dishes, raw in green smoothies



Carrot Tops:

- Discard lower, thick stems and remove any discolored leaves
- Finely chop and use in place of parsley
- Use in soups, pesto, chimichurri, or tabbouleh, salads, or sauté with kale or chard

Bulb & Stem Vegetable Cooking Ideas

Fennel stalks and fronds:

- Salads, stuff in cavity of fish, turkey or chicken, braise with pork roast, or stems can be candied

Celery leaves:

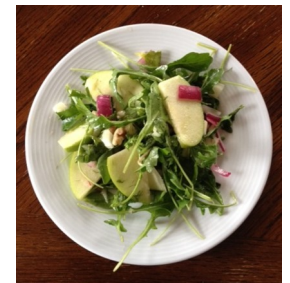
- Soups, salads, pesto, or stir-fry (add to very end of cooking time)

Asparagus ends:

- Creamy asparagus soup, or stock

Leek greens:

- Soups, stir-fry, stuffing/dressing, wrap fish with greens, or dehydrate into chips



Waste Not From Root to Stalk

This list shows commonly eaten vegetables in addition to their less-frequently eaten parts. Try incorporating secondary edible plant parts as well so they don't end up in the trash.

Vegetable	Common Edible Parts	Other Edible Parts
Beans, snap	pod with seeds	leaves
Beans, lima	seeds	pod, leaves
Beets	root	leaves
Broccoli	flower	leaves, flower stem
Carrot	root	leaves
Cauliflower	immature flower	flower stem, leaves
Celery	leaf stems	leaves, seeds
Corn, sweet	seeds	young ears, unfurled tassel, young leaves
Cucumber	fruit with seeds	stem tips and young leaves
Eggplant	fruit with seeds	leaves edible but not flavorful
Kohlrabi	swollen stem	leaves
Okra	pod with seeds	leaves
Onions	root	young leaves
Parsley	tops	roots
Peas, English	seeds	pod, leaves
Peas, Southern	seeds, pods	young leaves
Pepper	pod	leaves after cooking, immature seeds
Potatoes, Sweet	roots	leaves and stem shoots
Radish	roots	leaves
Squash	fruit with seeds	seeds, flowers, young leaves
Watermelon	fruit -- interior pulp and seeds	rind of fruit

Getting Started at Home

1. Shop home refrigerator first
2. Plan meals and follow shopping lists; avoid impulse buys
3. Understand date labels on food packages
4. Store and freeze foods correctly to prevent spoilage
5. Prepare smaller portions especially if leftovers go uneaten

Understand Date Labels on Food Packages

More than 90% of Americans may be prematurely tossing food because food labels are misinterpreted as indicators of food safety.⁵

New date labels have been proposed by the Grocery Manufacturers Association and Food Marketing Institute in an effort to reduce confusion and food waste. The two labels below would replace the 10+ used now.⁶

The “**Best If Used By**” date will appear on most foods. This is a quality date, meaning the food may not taste as expected after this date but will be safe to consume. It is not an expiration date.

The “**Use By**” date will be reserved for highly perishable foods and appear on products where safety is a concern over time. These foods should be disposed of after that date.

*FDA does not require food firms to place “use by” or “best if used by” dates on food products, with the exception of infant formula. This labeling is voluntary.

**BEST IF USED BY:
DEC 27 2019**

Tips and Tricks for Proper Food Storage

- * Never refrigerate potatoes, onions, winter squash or garlic. Instead, keep them in a cool, dark, dry cabinet but separate.
- * If your produce rots after a few days, you could be storing incompatible fruits and vegetables together! Store “gas releasers” and “gas sensitive” produce separate.⁷

Gas Releasers

- ◇ Apples
- ◇ Apricots
- ◇ Avocados
- ◇ Bananas, unripe
- ◇ Cantaloupe
- ◇ Figs
- ◇ Honeydew
- ◇ Kiwi
- ◇ Nectarines
- ◇ Peaches
- ◇ Plums
- ◇ Tomatoes

Use ethylene gas emitted from fruit to your advantage! To speed-ripen fruit, place in a closed paper bag with a “gas releaser” from the list.

Gas Sensitive

- ◇ Broccoli
- ◇ Brussels sprouts
- ◇ Cabbage
- ◇ Carrots
- ◇ Cauliflower
- ◇ Cucumbers
- ◇ Eggplant
- ◇ Lettuce and greens
- ◇ Peas
- ◇ Peppers
- ◇ Squash
- ◇ Sweet potatoes

Freezer Tips for Long-Term Quality

- * Use a refrigerator thermometer to ensure the freezer is set to 0°F or below
- * Date all freezer packages and use the oldest food first
- * Blanch vegetables before freezing
- * Wrap freezer items in heavy freezer paper, plastic wrap, freezer bags or foil and remove excess air
- * Freeze flat to shorten freezing time and reduce ice crystal size

For more information, refer to: Refrigerator/Freezer Storage Chart at

<http://bit.ly/Refrigerator-Freezer-Storage-Chart>

Did You Know These Foods Will Freeze?

- Pasteurized, homogenized milk
- Yogurt– try making frozen yogurt smoothie pops
- Hard and semi-hard cheese– no more than 1/2 pound chunks



These Foods Don't Freeze Well⁸



Cabbage, celery, cress, cucumbers, endive, lettuce, parsley, radishes



Boiled or baked potatoes (except sweet potatoes)



Cream or custard fillings



In addition to freezing, canning food helps reduce food waste. University of Illinois Extension can help with that! Pressure canner gauges need to be tested each year for accuracy. Contact your local Extension office for more information.

For up-to-date canning processes, call the local Extension office or visit: nchfp.uga.edu.

GET SMART: TAKE THE CHALLENGE

KEEP GOOD FOOD FROM GOING TO WASTE

WHAT IS THE CHALLENGE?

Did you know that in 2013 Americans threw 35 million tons of food into landfills and incinerators? Research shows that nearly everyone wastes more than they think they do. The **Food: Too Good to Waste** Challenge will help you figure out how much food is really going to waste in your home and what you can do to waste less. By making small shifts in how you shop for, prepare, and store food, you can save time and money, and keep the valuable resources used to produce and distribute food from going to waste!

WHAT DO YOU NEED?

You only need a few basic tools to get started, which include 1) a pen/pencil, 2) paper or printed worksheets, 3) small garbage bags, and 4) a small scale (optional).

GET SMART: SEE HOW MUCH FOOD (AND MONEY) YOU ARE REALLY THROWING AWAY

WEEKS 1 & 2: Measure how much food your family wastes in a week and record the volume and/or weight.

WEEKS 3 through 5: Try out one or more of the smart strategies listed below while continuing to measure how much goes to waste each week. Keep notes on what works to reduce food waste and what doesn't.

- **Smart Shopping: Buy What You Need** – Make a shopping list with the Meals-In-Mind Shopping List template based on how many meals you expect to eat at home before your next shopping trip. By buying no more than what you expect to use, you will be more likely to use it up and keep it fresh.
- **Smart Storage: Keep Fruits and Vegetables Fresh** – Store produce so it stays fresh longer with the help of the Fruits and Vegetable Storage Guide.
- **Smart Prep: Prep Now, Eat Later** – By preparing perishable foods as soon as possible, preferably post shopping, you'll make it easier to serve snacks and meals later in the week, saving time, effort and money.
- **Smart Saving: Eat What You Buy** – This involves being mindful of leftovers and old ingredients that need using up. The "Eat First" prompt can be used to designate an area in your refrigerator for leftovers and food that won't keep long.

Week 6: Measure and record your final weekly food waste amount. See how much food (and money) you saved compared to weeks one and two.

GET READY

You can find all the printed materials you need to take the FTGTW Challenge available for download at <http://www2.epa.gov/sustainable-management-food>

They include:

- This instruction sheet which includes the recording worksheet.
- Meals in Mind Shopping List Template
- Fruit and Vegetable Storage Guide
- Eat Me First Prompt

GET SMART: TAKE THE CHALLENGE

KEEP GOOD FOOD FROM GOING TO WASTE

TIPS FOR TAKING THE CHALLENGE

1. Explain the challenge to members of your household/community and ask for their participation.
2. At the start of each week, line one paper bag with a green compostable bag. Over the course of the week, place all your PREVENTABLE food waste into the bag. Discard NON-EDIBLE food in the usual manner. (PREVENTABLE food waste is both food you bought to eat but has since spoiled and food that was prepared but not eaten and was then thrown away. NON-EDIBLE food waste is everything you wouldn't normally eat, such as banana peels, egg shells, apple cores and chicken bones.)
3. At the end of each week, measure both the weight and the volume of food waste in the bag. Record both the volume and the weight for the week on the attached worksheet. Once you get started, it should take no more than 15 minutes a week to measure and record your food waste.
4. If the bag fills before the end of seven days, weigh or record the volume of the full bag and record how many days you collected food in that bag. Then begin collection in a new bag. At the end of the week, total your weight and/or volume of food waste for the entire week.
5. After you record the weight and volume of food wasted for the week, dispose of the collection bag, including food, appropriately and as acceptable for your collection service, by composting, through organics collection or in the garbage.
6. Except for the new strategies you try starting in week 3, keep to your usual routine as much as possible during the challenge. For example, unless you regularly clean out your freezer, do not clean it throughout the challenge.
7. At the end of week 6, compare your totals for weeks 1 and 2 to weeks 3 through 6 and see how much food you saved from going to waste! Many families have reduced their food waste by 25% or more.

ADDITIONAL WASTE COLLECTION TIPS:

- If you are concerned about leakage, then you might use a plastic bag as a second liner.
- If concerned about odor, you can clip the top of the bag shut; or you can start using a new bag mid-week, as long as you track the total volume of waste for the whole week.
- Do not collect liquid waste such as soup or food-soiled paper products.

AFTER THE CHALLENGE

Once you've completed the challenge, share your successes and lessons learned with other individuals or organizations who may be interested in reducing wasted food.

For more information on sustainable management of food, please visit
<http://www.epa.gov/sustainable-management-food>

GET SMART: TAKE THE CHALLENGE

KEEP GOOD FOOD FROM GOING TO WASTE

RECORDING WORKSHEET

WEEK 1

Start Date: _____ Day of Week: _____
_____ Bag Volume _____ Weight
_____ # of days collected

NOTES (WHAT GOES TO WASTE AND WHY)

WEEK 2

Start Date: _____ Day of Week: _____
_____ Bag Volume _____ Weight
_____ # of days collected

NOTES (WHAT GOES TO WASTE AND WHY)

Totals – Weeks 1 and 2

_____ Bag Volume _____ Weight

Averages – Weeks 1 and 2

Total Volume \div 2 = _____ Total Weight \div 2 = _____

WEEK 3

Start Date: _____ Day of Week: _____
_____ Bag Volume _____ Weight
_____ # of days collected

NOTES (WHAT WORKS, WHAT DOESN'T)

WEEK 4

Start Date: _____ Day of Week: _____
_____ Bag Volume _____ Weight
_____ # of days collected

NOTES (WHAT WORKS, WHAT DOESN'T)

WEEK 5

Start Date: _____ Day of Week: _____
_____ Bag Volume _____ Weight
_____ # of days collected

NOTES (WHAT WORKS, WHAT DOESN'T)

WEEK 6

Start Date: _____ Day of Week: _____
_____ Bag Volume _____ Weight
_____ # of days collected

NOTES (WHAT WORKS, WHAT DOESN'T)

Totals – Weeks 3 through 6

_____ Bag Volume _____ Weight

Averages – Weeks 3 through 6

Total Volume \div 4 = _____ Total Weight \div 4 = _____