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Let's chat: What do you think? What % of edible food goes to waste in the United States?



- A. 20%**
- B. 30%**
- C. 40%**

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What do you think? What % of edible food goes to waste in the United States?



30-40%
Depending on methodology used and the sector of the food chain studied

Source: Food and Drug Administration, <https://www.fda.gov/food/consumers/food-loss-and-waste>

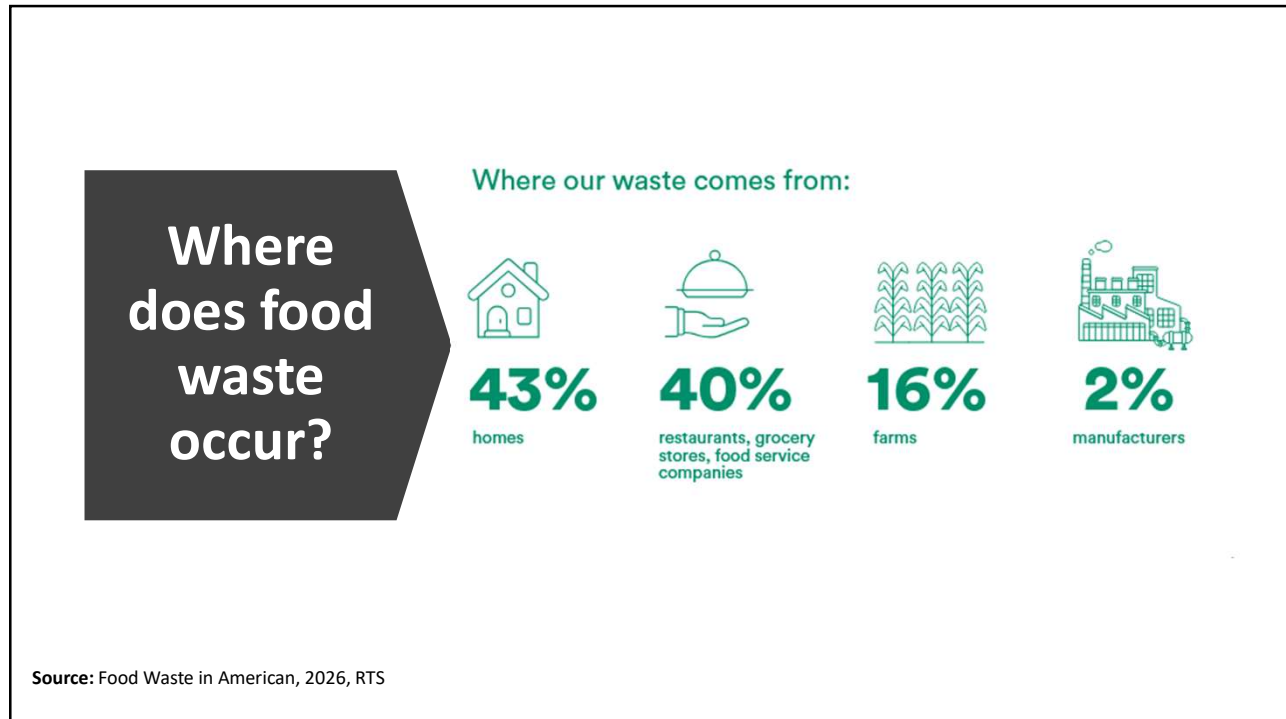
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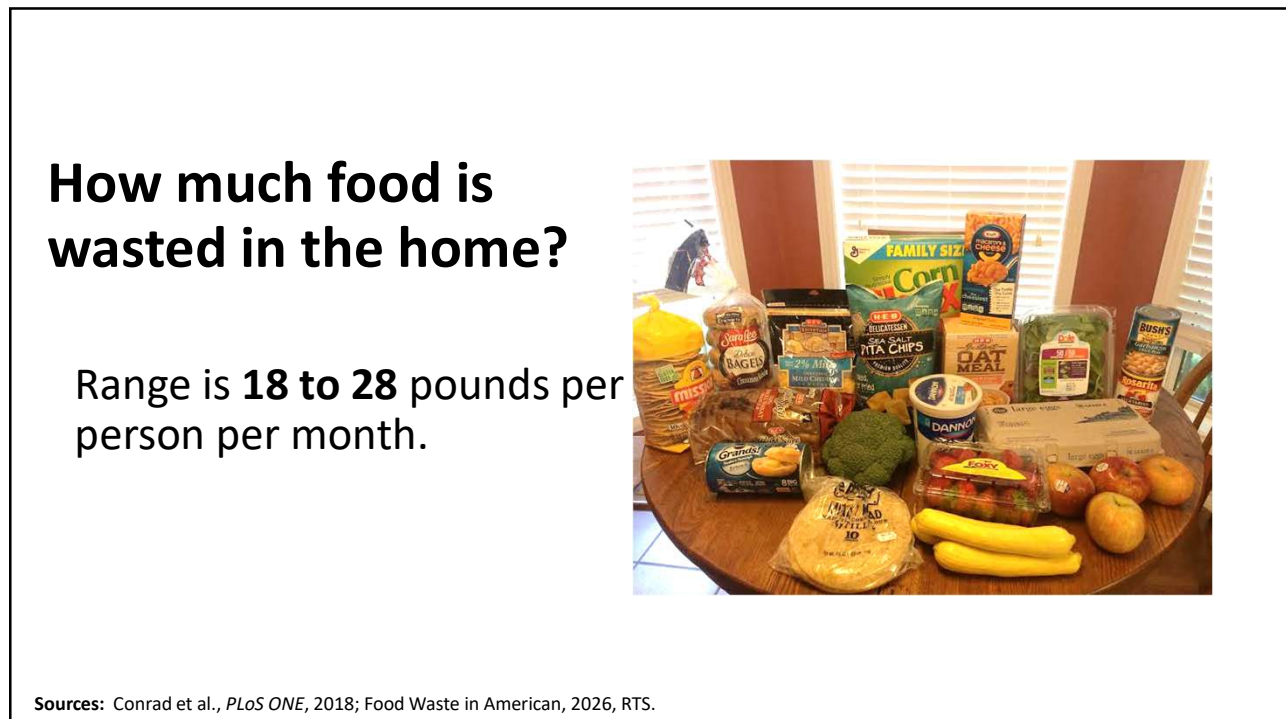
An estimated 40 million tons of food goes to waste every year in the United States

Source: Food Waste In America in 2023; Statistics + Facts. RTS, 2023

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Results



Average amount of *edible food* wasted per household was 6.2 cups

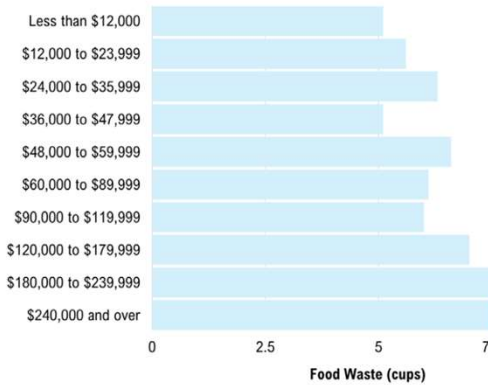
Source: MITRE Independent Research and Development Program, November 2023

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Average household food waste = 6.2 cups of edible food (7 days)

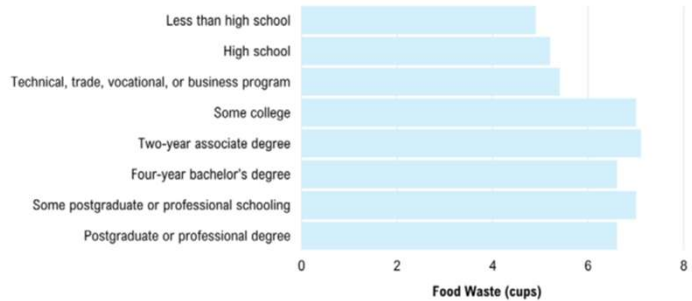
Food Waste by Household Income

Average cups wasted per household over one week



Food Waste by Highest Education

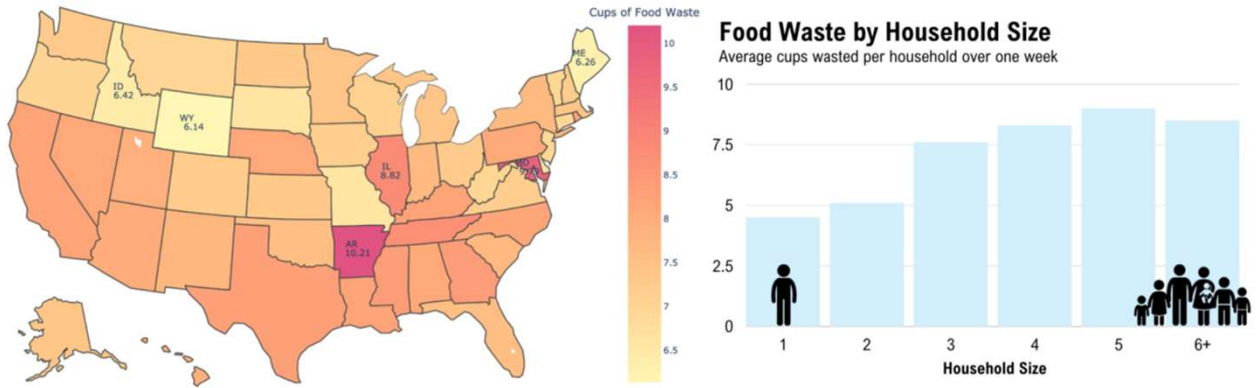
Average cups wasted per household over one week



Source: MITRE Independent Research and Development Program, November 2023

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Average household food waste = 6.2 cups of edible food (7 days)



Source: MITRE Independent Research and Development Program, November 2023

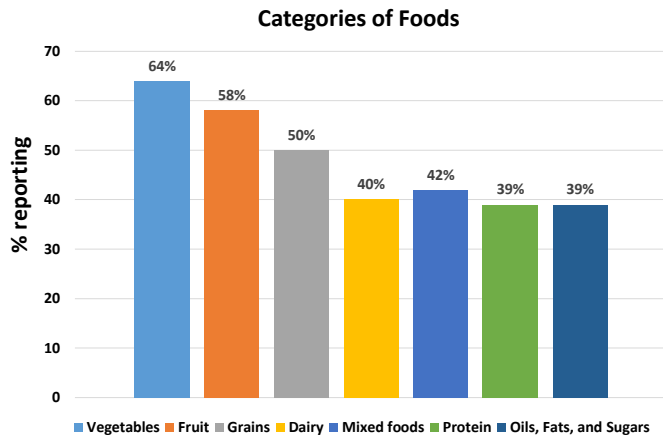
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Let's pause for a minute.....

What type(s) of food do/did you throw out most often?

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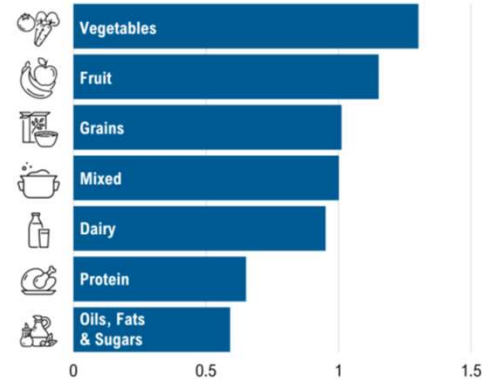
What types of foods are being wasted?



Source: MITRE Independent Research and Development Program, November 2023

Food Waste by Food Type

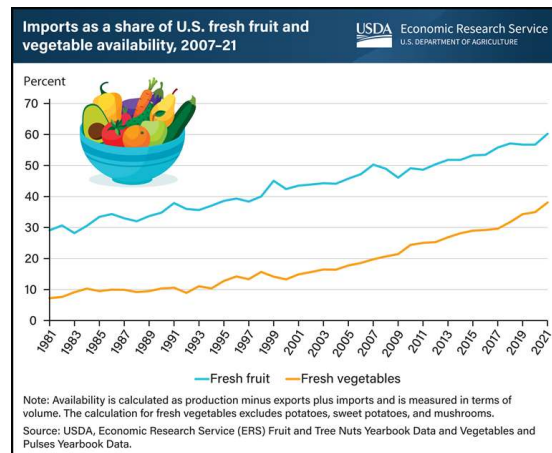
Average cups wasted per household over one week



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Why care about food waste?

- Wasted food = wasted resources
 - Food produced **in the US** uses 10% of energy and 80% of fresh water
- 60% of fresh fruit and 40% of fresh vegetables available in the US **are imported**



Note: Availability is calculated as production minus exports plus imports and is measured in terms of volume. The calculation for fresh vegetables excludes potatoes, sweet potatoes, and mushrooms. Source: USDA, Economic Research Service (ERS) Fruit and Tree Nuts Yearbook Data and Vegetables and Pulses Yearbook Data.

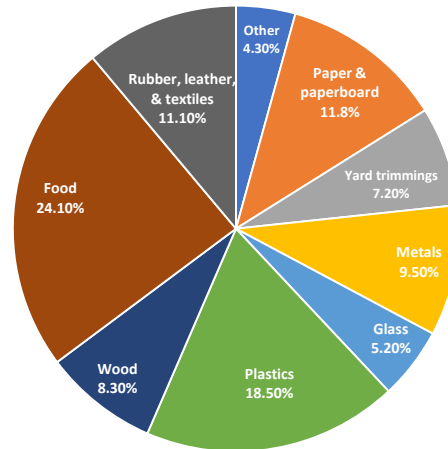
Sources: EPA, 2011; USDA, Natural Resources Defense Council, 2012; Levis et al., *Waste Management*, 2010; Buzby and Hyman, *Food Policy*, 2012; EPA, *Advancing Sustainable Materials Management: 2018 Fact Sheet* December 2020; USDA Economic Research Service, Fruit and Vegetable Import Data, July 2023

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Why care about food waste?

- Food waste is the largest component of municipal solid waste; more than plastics, metals, wood or yard waste
 - Nearly 96% of food waste ends up in landfills.

Total MSW Landfilled (by material), 2018



Sources: EPA, 2011; USDA, Natural Resources Defense Council, 2012; Levis et al., *Waste Management*, 2010; Buzby and Hyman, *Food Policy*, 2012; EPA, *Advancing Sustainable Materials Management: 2018 Fact Sheet* December 2020

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Why the concern about food waste?

- Wasted food could be an opportunity to feed hungry people
 - Prevalence of food insecurity in Texas is 17.4%
 - National rate is 13.7%
- Wasted food = wasted money
 - Estimated value of wasted food is \$310 billion (nationally)
 - Household value of food waste is \$1,500 annually
 - 81% of American households have expressed concern about food prices



Source: USDA, Economic Research Service. *Household Food Security in the United States, 2024*. Report #358, December 2025; MITRE Independent Research and Development Program, November 2023

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EPA estimates are much higher.....

\$56/week = \$2912/year

What could you do with that extra cash?

Cash in the Trash

By throwing away less food, **your family of 4** could save up to \$56 per week...

...What could you buy with money saved from wasting less food?

EPA

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Why is food waste happening?

- Lack of awareness about how much food is wasted
- Our desire to eat only the freshest (and “perfect”) foods
- Spoilage (food spoils for several reasons)
- Impulse and bulk purchase that are not used/stored
- Poor (or no) planning (not thinking about family activities)
- Not utilizing leftovers or food scraps that can be consumed or composted
- Preparing more food than what can be eaten
 - Not using/preserving leftovers
- Concern about foodborne illness



Sources: Neff RA, Spiker ML, and Truant PL. Wasted Food: U.S. Consumers’ Reported Awareness, Attitudes, and Behaviors. *PLOS One*, June 2015. *Food Waste in America in 2021: Statistics & Facts*. RTS, Food Waste Guide, 2021; Davenport ML et al., *Resources, Conservation & Recycling*, 2019; MITRE Independent Research and Development Program, November 2023

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Other factors

- Dates stamped on food packages – lots of confusion!!!
- Container/package size of foods – may be too big for what we can use
- Food portions (when we eat out)

Sources: Davenport ML et al., *Resources, Conservation & Recycling*, 2019; Food Waste In America in 2023; Statistics + Facts. RTS, 2023; Neff RA et al., *Waste Management*, 2019

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Why are fruits and vegetables wasted so often?

1. Forget to eat it before it spoils
2. Spoiled faster than expected.
3. Bought more than what could be consumed.
4. Did not taste good.

Source: Heng, Y. & House, L. *International Food and Agribusiness Management Review*, 2022

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What motivates us to reduce food waste*?



More than half of these respondents felt that there was something they could do to reduce their food waste.

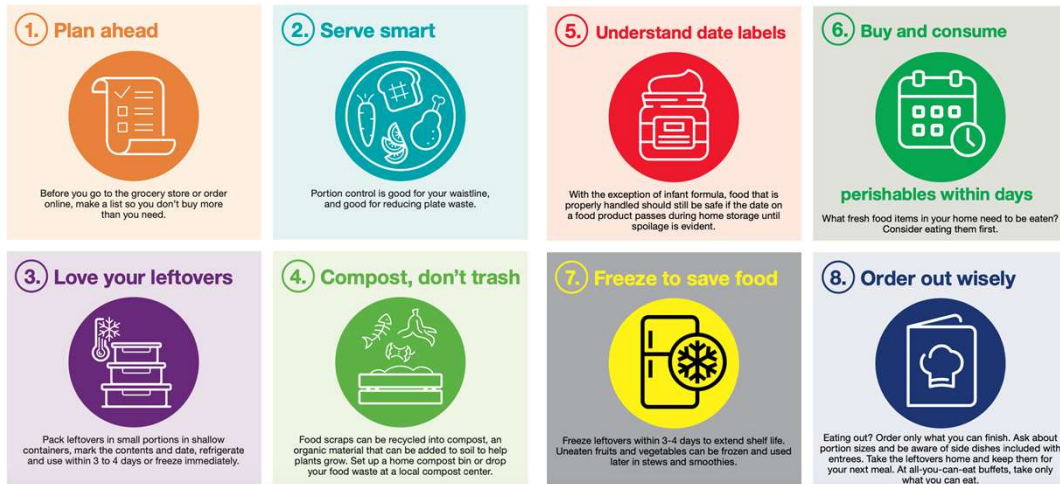
Source: MITRE Independent Research and Development Program, November 2023

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USDA Recommendations

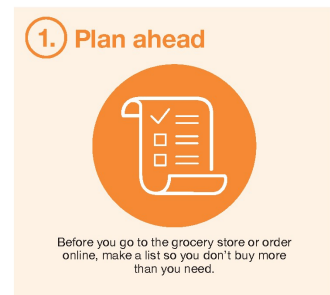


Source: USDA <https://www.usda.gov/foodlossandwaste/consumers>

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Meal Planning

- How many meals/snacks do you need this week?
 - Think about family obligations, activities for the week
 - Can dinner tonight be used for lunch tomorrow?
- How many will be eating?
- Start with **what you have on hand** (freezer, refrigerator, & pantry)
 - How many of us know what we have right now?
- Use a list when shopping



Have a purpose.....Have a plan

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Meal Preparation

- Prepare the amount of food that you/family will eat or use (now or in the future)
 - Practice portion control when serving
 - Serve on smaller plates
- Pack leftovers in single-serve containers for future meals (use within 3-4 days)
- Freeze leftovers for future meals

Have a purpose.....Have a plan

2. Serve smart



Portion control is good for your waistline, and good for reducing plate waste.

3. Love your leftovers



Pack leftovers in small portions in shallow containers, mark the contents and date, refrigerate and use within 3 to 4 days or freeze immediately.

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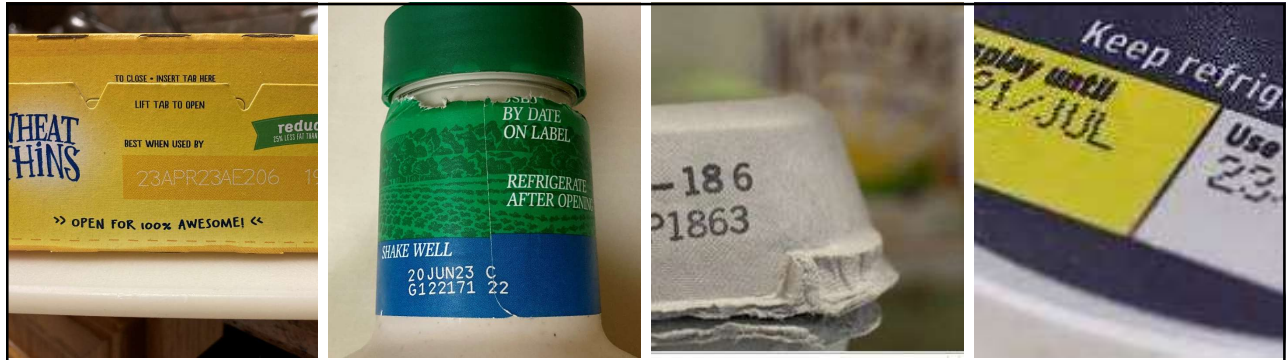
**Don't be
confused by
dates on food
packages**

5. Understand date labels



With the exception of infant formula, food that is properly handled should still be safe if the date on a food product passes during home storage until spoilage is evident.

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What does the date mean?

- Best-by
- Best-If-Used-By
- Sell-by
- Best if used by
- Expiration
- Pull-by
- Pack date
- Use-by

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Did you know?

84% Americans report they throw away food near the package date at least *occasionally*

37% do this *“always”* or *“usually”*

Source: Neff et al., *Waste Management*, 2019

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Food Storage

- Store leftovers in clear containers **so you can see them.**
- Keep an inventory of what foods you have
- Date the foods you place in the freezer; practice FIFO for best quality

**Have a purpose.....Have a plan
(and store your food safely)**



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Manage those leftovers – if you have them

People who eat leftovers tend to **waste less food.**

Barriers to Using Leftovers	
Concern about safety/foodborne illness	Use within 3-4 days; maintain 40 degrees or cooler in the refrigerator
“I didn’t know _____ was in there!”	Place leftovers in the refrigerator where they can be seen and easily accessed
Leftovers are boring	Can they be repurposed into another meal/dish?
Sense of guilt/sacrifice	Prepare less to avoid leftovers

Source: Schanes K et al., *Journal of Cleaner Production*, 2018

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Store your fruits and vegetables wisely

have a plant

Fruits & Veggies F&V Inspo Recipes Expert Advice Contributors

Fruits & Veggies

Nutrition, storage and handling information on a variety of fruits and vegetables. One look and you'll see that eating a colorful variety of fruits and veggies provides a wide range of valuable nutrients.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

A

- Acorn Squash
- Almonds
- Amaranth
- Anaheim Chile
- Apple

- Apricots
- Armenian Cucumber
- Arrowroot
- Artichoke
- Arugula

- Asian Pears
- Asparagus
- Avocado

[BACK TO TOP](#)

Fruit Storage

Where and for How Long to store fruits to maximize freshness

Fruit Type	Room temperature Storage (50-70 degrees F)	Refrigerator at or below 40 degrees F
Apples	3 Weeks	4-6 Weeks
Avocados	Until Ripe & ready to eat	3-4 Days
Bananas	Until Ripe & ready to eat	3 Days
Blueberries	Not Recommended	1-2 Weeks
Citrus (orange, grapefruit, etc.)	10 Days	10-21 Days
Grapes	1 Day	1 Week
Melons	Until Ripe & ready to eat	2 weeks (uncut), 2-4 days cut
Peaches, nectarines, plums or pears	Until Ripe & ready to eat, then 1-2 Days	3-5 Days
Pineapple	Not Recommended	5-7 Days
Strawberries	Not Recommended	2-3 Days

This material was funded by USDA's Supplemental Nutrition Assistance Program (SNAP). This institution is an equal opportunity provider. Created by UConn Dietetics student Jackie Rose.

UConn

<https://fruitsandveggies.org/>

<https://fruitsandveggies.org/fruits-and-veggies/>

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Minimize takeout waste

- Portion sizes tend to be large when we eat out.
- Do people eat leftovers from restaurants?

Reasons for taking leftovers home	Reasons against taking leftovers home
Save \$\$	Don't like the meal as a leftover
Get 2 meals for the price of 1	Hard to transport the food home
One less meal to cook	No place to refrigerate it (safety)
Don't want to waste food	Too much of a hassle
	Not sure when I would eat it

Have a plan (if you have leftovers)

Source: Talwar S. et al., *Journal of Sustainable Tourism*, 2023

8. Order out wisely

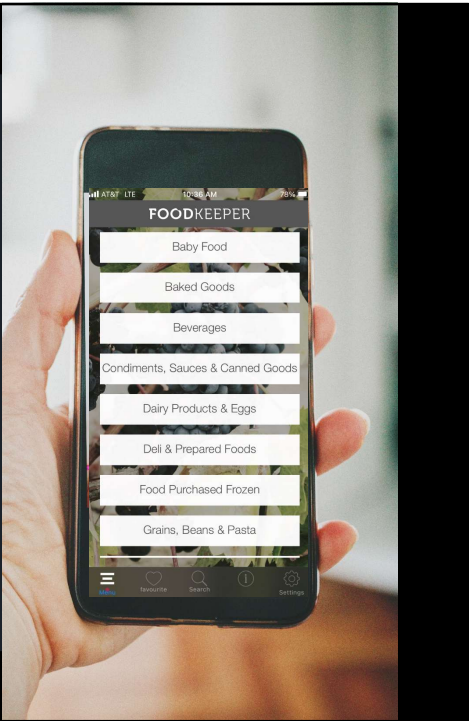


Eating out? Order only what you can finish. Ask about portion sizes and be aware of side dishes included with entrees. Take the leftovers home and keep them for your next meal. At all-you-can-eat buffets, take only what you can eat.

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Is it still good?
Can I eat it?

*There's an app
for that!*



Source: <https://www.foodsafety.gov/keep-food-safe/foodkeeper-app>

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Global strategies to reducing food waste



Europe & US: Imperfect fruits and veggies



In 2016, France banned food waste



South Korea has increased composting and recycling

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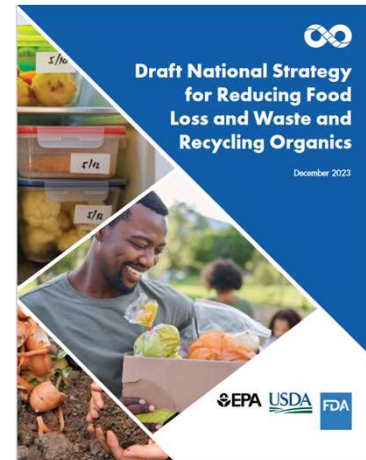
National Strategy for reducing food loss and waste

Goal: Reduce food waste
by 50% by 2030

Main objectives

- Prevent the loss of food where possible.
- Prevent the waste of food where possible.
- Increase the recycling rate for all **organic** waste.
- Support policies that incentivize and encourage food loss and waste prevention and organics recycling.

<https://www.usda.gov/sites/default/files/documents/food-waste-strategy.pdf>



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AgriLife Extension's response to the charge of reducing home food waste

- *Get a Taste for Reducing Food Waste*
 - Problem with food waste
 - Meal planning to reduce food waste
 - Understanding the dates on food labels
 - Home composting



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Program Evaluation results – 2024 program year

- Increase in targeted behaviors:
 - Make a list before shopping
 - Check what you have before shopping
 - Estimate how much you need
 - Buy only items on the list
 - Don't buy an item because it is on sale
 - Don't buy something just because.....
- Increase in prioritizing the use of leftovers
- Increase in freezing foods that can't be eaten time
- Increase in portioning out leftovers for future meals
- Saw an increase in composting

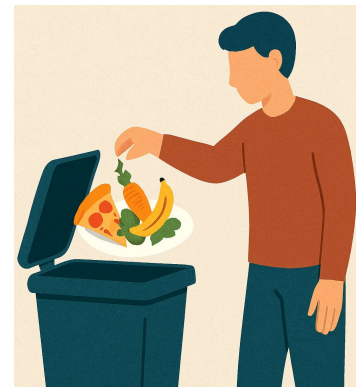
366 participants
18 counties
4-weeks



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The percent of people throwing food away **after the date on the label had passed** dropped significantly.

Food	% Throwing Away Pre	% Throwing Away Post	p-value*
Fresh meat, poultry and seafood	33.1	11.7	.0001
Eggs	29.0	8.7	.0001
Milk	27.9	9.0	.0001
Cheese	24.0	7.1	.0001
Breads (including bagels and tortillas)	22.1	12.0	.0001
Bagged salads/prepackaged salads	27.6	18.6	.002
Canned foods	25.1	13.1	.0001
Packaged foods	24.6	10.7	.0001



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Final thoughts.....



- Lots of food is being wasted that could be put to better use.
- Food waste has economic, environmental, and social consequences.
- When talking about food waste, know what matters to your audience.
- The desire for “fresh” and “perfect” foods fuel food waste.
- Date stamps on labels and fear of foodborne illness are also big contributors to food waste.

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Questions?

TEXAS A&M
AGRILIFE
EXTENSION

The beauty of an ugly onion is in its ability to bring tears of joy to your dishes.

~ anonymous

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