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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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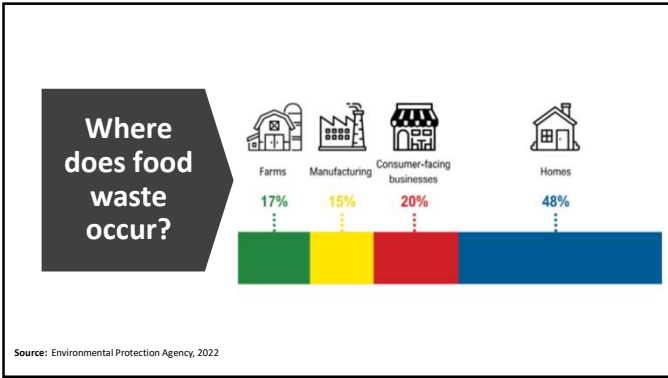
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### How much food is wasted in the home?

422 grams/day (15 oz)

28.3 pounds of food **per person** per month

Source: Conrad et al., PLoS ONE, 2018

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### Let's talk (chat) about it.

Think about the amount of edible food you throw out. Do you think that amount is more than, the same as, or less than the amount of food thrown out by the average person?

- More than
- The same
- Less than

**Food Waste Journal**  
Session 1: The What and Why About Home Food Waste

Important note: This journal is for personal use only. It is not intended for publication or distribution. The information provided here is for educational purposes only. Please do not use this information for any other purpose without the permission of the author. All rights reserved.

Food	Amount	Method of Disposal	Why It Was Discarded	Estimated Value

Adapted from: [www.epa.gov/foodwaste](http://www.epa.gov/foodwaste)

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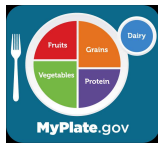
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### National Home Food Waste Study

- Conducted by MITRE-Gallup group
- 9,259 households in the U.S.
- Food waste was defined as “any food disposed of at home via the trash bin, drain, garbage disposal, compost or animal feed”
  - Participants were asked to identify food that was inedible
- Food waste tracked for one week and survey respondents identified their food waste in each of the MyPlate categories



Source: MITRE Independent Research and Development Program, November 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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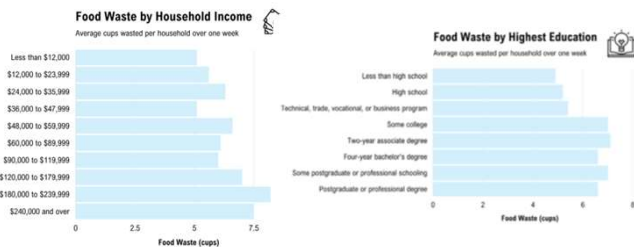
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### Average household food waste = 6.2 cups of edible food (7 days)



Source: MITRE Independent Research and Development Program, November 2023

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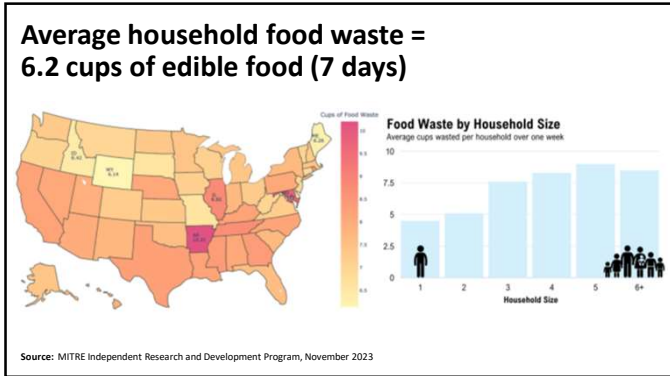
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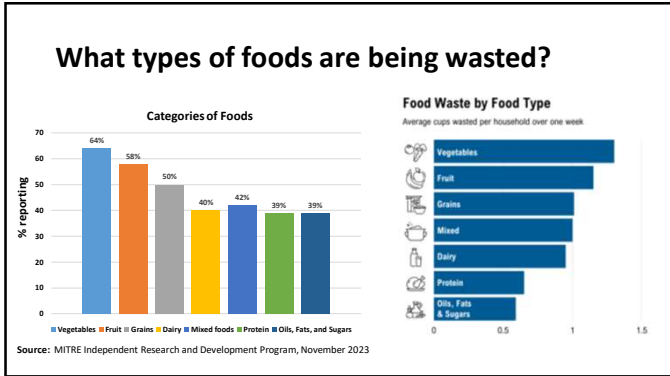
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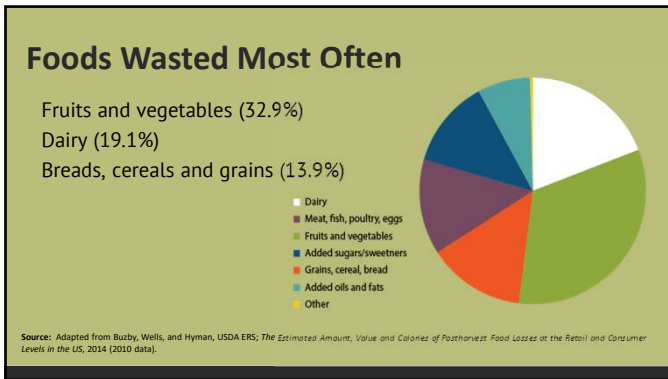
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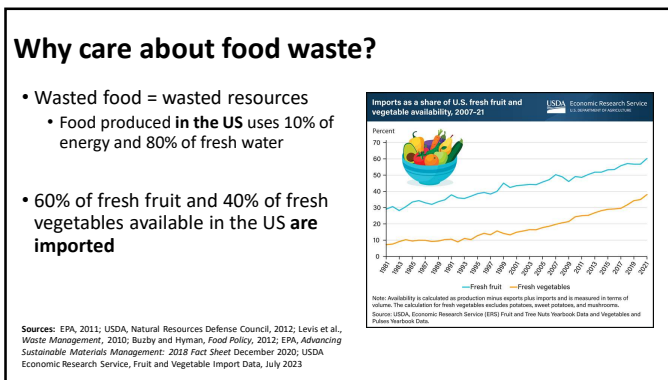
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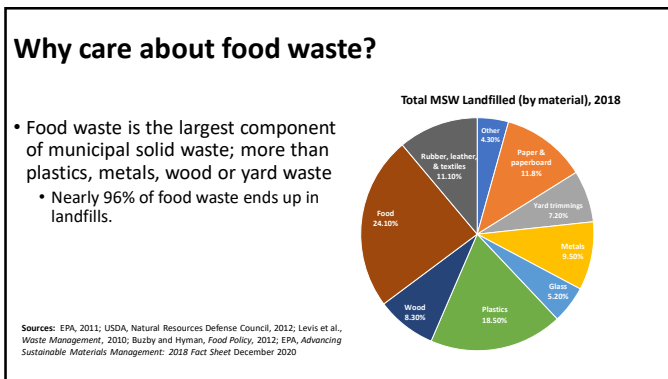
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### Why the concern about food waste?

- Wasted food could be an opportunity to feed hungry people
  - Prevalence of food insecurity in Texas is 15.5% (up from 13.7% in 2021)
  - National rate is 11.2% (up from 10.4% in 2021)
- 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, 2022. Report #925, October 2023; MITRE Independent Research and Development Program, November 2023

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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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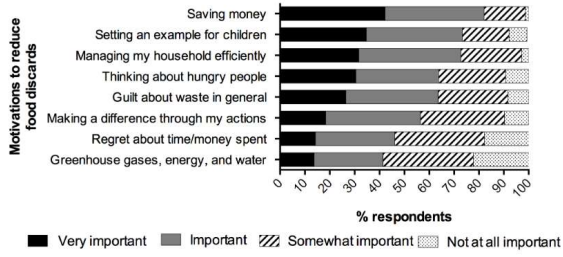
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### What motivates consumers to reduce food waste?



Source: Neff et al. Wasted Food: U.S. Consumer's Reported Awareness, Attitudes, and Behaviors, June 2015

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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

<p><b>1. Plan ahead</b></p>  <p>Before you go to the grocery store or order online, make a list so you don't buy more than you need.</p>	<p><b>2. Serve smart</b></p>  <p>Portion control is good for your waistline, and good for reducing plate waste.</p>	<p><b>5. Understand date labels</b></p>  <p>With the exception of open formula, food that is properly labeled should still be safe if the date on a food product doesn't match storage and handling instructions.</p>	<p><b>6. Buy and consume perishables within days</b></p>  <p>What fresh food items in your home need to be eaten? Consider eating them first.</p>
<p><b>3. Love your leftovers</b></p>  <p>Pack leftovers in small portions in shallow containers, label the containers and date, refrigerate and use within 3 to 4 days or freeze immediately.</p>	<p><b>4. Compost, don't trash</b></p>  <p>Food scraps can be recycled into compost, an organic material that can be added to soil to help plants grow. Ask your farmer, compost bin or drop-off site, or call us to find compost centers.</p>	<p><b>7. Freeze to save food</b></p>  <p>Freeze leftovers within 3 to 4 days to extend shelf life. However, fats and oils may become rancid and lose flavor or texture when reheated.</p>	<p><b>8. Order out wisely</b></p>  <p>Eating out? Order only what you can finish. Ask about portion size and the amount of side dishes included with entrees. Ask for different items and keep them for your next meal. At all times, use napkins, use only what you can eat.</p>

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

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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

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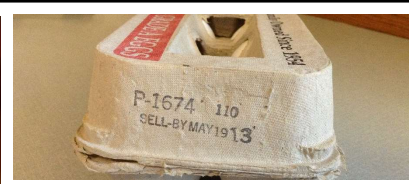

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### Did you know?

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

The infographic 'Fruit Storage' provides storage guidelines for various fruits:

Fruit Type	Refrigerator Storage (40°F Recommended)	Refrigerator at or Below 40°F (40°F Recommended)
Apples	3 Weeks	4-6 Weeks
Avocados	Until Ripe & ready to eat	3-4 Days
Bananas	Until Ripe & ready to eat	3 Days
Burdock	Not Recommended	1-2 Weeks
Citrus (oranges, grapefruit, etc.)	10 Days	10-21 Days
Grapes	1 Day	1 Week
Melons	Until Ripe & ready to eat	2 weeks (cut), 3-4 days (not)
Peaches, nectarines, plums or pears	Until Ripe & ready to eat, then 1-2 Days	3-5 Days
Pineapples	Not Recommended	3-7 Days
Strawberries	Not Recommended	2-3 Days

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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



Tip: Ask for a smaller portion size. Ask about portion sizes and the availability of food items. Request that servers take the leftovers home and keep them for you. Ask about the availability of food items. Ask about what you can eat.

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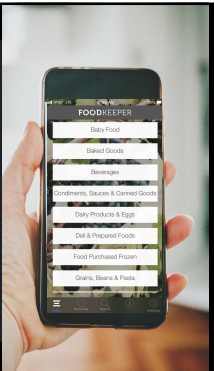
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Is it still good?  
Can I eat it?

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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**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?**



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

~ anonymous

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