

Minimizing Waste



Costco understands our potential impact on the global waste stream and greenhouse gas emissions caused by waste generated within our global operations. Our goal is to continually decrease the amount of our waste going to landfills, with a goal to divert 80%. Here, we'll explain the steps we are taking to reach that goal. You can click on this [Global Waste Stream Report](#) to see our annual report on waste diversion.



Diverting Waste from Landfill

Effective waste diversion conserves natural resources, saves energy, cuts expenses and reduces emissions. By diverting waste from the landfill, Costco cuts back on hauling waste from our locations — which reduces fuel consumption, CO2 emissions generated from transportation, and hauling costs. We continue to examine waste disposal programs to maximize efficiency and to reduce costs.

Regarding our 80% diversion goal, in fiscal year (FY) 2022, we diverted 78.7% of our waste from landfills. We define waste diversion as the total tons (measured in U.S. tons) of waste that is not directly dumped into landfill sites or burned at incineration facilities that do not create energy. We include Waste to Energy as part of our diversion program. Other diversion examples include donations, anaerobic digestion, recycling, composting and animal feed. Costco is committed to expanding these programs through partnerships, enhanced efficiencies and emerging technologies.

Tracking Emissions

Reducing waste sent to landfill is critical, as landfills emit methane during decomposition. Costco started measuring its baseline for total waste emissions in FY21. Since then, we have estimated our total Scope 3 (GHG Protocol Category 5) waste emissions for all

reporting Costco locations for FY20, FY21, and FY22 based upon the total tonnage to landfill and total tonnage diverted. We reported 137,098 mtCO₂e in FY20 and 147,347 mtCO₂e in FY21. In FY22, we are reporting 154,140 mtCO₂e.

For more information on emissions, see our [Climate Action Plan](#) page.

Waste Diversion Figures: A Look Back

	FY18	FY19	FY20	FY21	FY22
Landfill/Incineration (US tons)	273,389	312,487	291,269	327,874	337,161
Diverted from Landfill/Incineration (US tons)	683,493	831,594	907,114	1,188,243	1,245,496
Diversion %	71.4%	72.7%	75.7%	78.3%	78.7%
Reporting Regions	5	10	12	12	12

Reducing Food Waste

Costco recognizes the global impact of food waste, and we are developing new systems to track and reduce food waste within our operations. For food waste, we follow the Food Waste Hierarchy, as defined by the U.S. Environmental Protection Agency (shown in graphic on the following page). We take a variety of steps to keep food out of landfills, whether it's by creating a new product (source reduction), donating it to needy people, or feeding it to animals.

Source Reduction

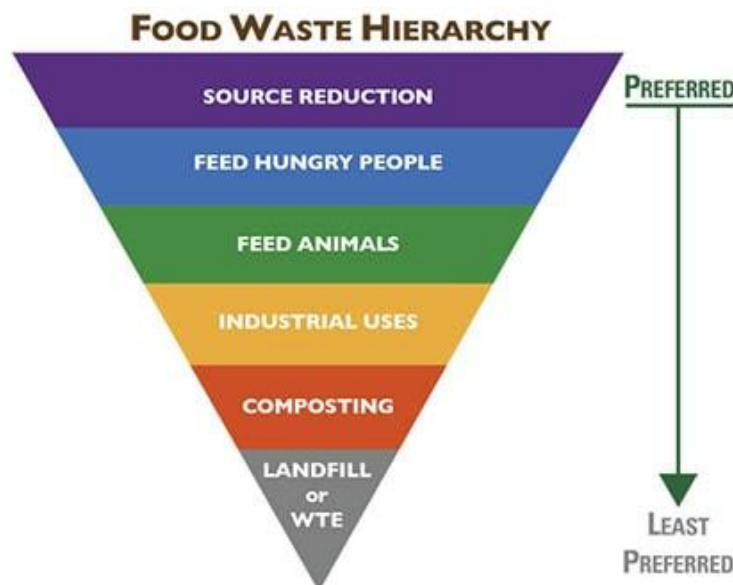
One way of reducing food waste in our operations is by creating new items for our members. For example, unsold rotisserie chickens are made into these deli items, reflecting local tastes:

- Chicken Noodle Soup, Chicken Enchilada Bake, Chicken Alfredo and Chicken Pot Pies in the U.S.
- Red Alfredo Chicken Penne and Honey Glazed Chicken Legs in Japan.

- BBQ Chicken Wings, Chicken Enchiladas and Chicken & Mushroom Lattice Pies in the UK.
- Singapore Laksa in Taiwan.

Aside from rotisserie chickens, other foods also end up in new items. These include:

- Croissants from the bakeries in Japan into an Almond Croissant dessert item.
- Ground beef from the U.S. meat department to produce stuffed peppers and meatloaf in the deli.
- Ground beef from Canada's meat department to create Shepherd's Pie and Stuffed Bell Peppers similar to the U.S.
- Unsold oranges for a high-quality smoothie in Japan's food courts.



Three Costco suppliers are working with the Equitable Food Initiative and Measure to Improve to pilot a waste reduction and tracking program that expands their worker engagement efforts to include a sustainability focus. Through this pilot, suppliers conducted baseline visual and physical audits of materials waste (cardboard, clamshells, etc.), green waste (culls) and food loss in 2021 to determine which priority actions to include in a waste reduction plan. The companies are now implementing these programs and gathering data to measure their success in reducing waste and ultimately greenhouse gas emissions. The three farming operations partnering in this initiative are Andrew & Williamson Fresh Produce/GoodFarms, Misionero and Windset Farms.



Please see additional examples of source reduction in the “Kirkland Signature” page in our [Merchandising section](#), (under “Reducing Food Waste”).

Food Donations

Costco has programs and partnerships with [Feeding America](#), The Global FoodBanking Network and food banks to prevent food from being wasted. Feeding America is a national organization in the U.S. that works with local food banks as a bridge with our U.S. locations. [The Global FoodBanking Network](#) partners non-U.S. locations with certified member organizations to donate to entities that have established food safety standards. These efforts provide meals to individuals and families who are food insecure.

We offer our food donation program in all states and most countries/regions where we operate, and have continued to grow our program year over year. The U.S., Canada, and Mexico have added the ability to donate cooked food from our food courts by creating food safety procedures to properly cool and donate unsold items. More information can be found in our 2021 August *Costco Connection* article, [Do not discard](#).

Food Donations Over The Past Five Years

	FY18	FY19	FY20	FY21	FY22
Food Donations (Millions Lbs.)	34.7	76.9	92.8	99.0	125.8
Meals Donated (Million Meals)	28.9	64.1	77.3	82.5	104.8
Number of Warehouses & Depots Donating	498	772	794	823	844

We understand the importance of the types of food donated, so we strive to provide healthy and nutritious food. In FY22, 71.4% of the food donated in the U.S. was in the following categories:

- Produce/fruit/vegetables (40%)
- Grains/bread (19.4%)
- Dairy/protein (12%)

Other Uses for Food

We also work to avoid putting food into landfills through these steps:

For Animals. Using our inedible waste for animals is important because it reduces the demand to generate new resources. For example, our warehouses divert organic materials for feed to local programs, including animal sanctuaries, rescue centers, local farms for cattle, hogs and other animals, and city zoos. This global effort saves millions of pounds of food materials from landfills.

Also, in our Japan warehouses, coffee grounds from the Food Courts are sent to the Kalm Kakuyama Organic Farm, which uses them as bedding for the cows. The coffee grounds are valuable because of their antibacterial and odor-reducing effect. The organic milk from these cows is available in our all Japanese warehouses, completing a unique circle of sustainability. (Also, the coffee grounds eventually end up as biogas fuel to generate electricity on the farm). Also in Japan, coffee grounds are sent from one warehouse to be repurposed as cattle feed.

Industrial Uses. Much of our organic waste is also recycled into usable products, such as organic fertilizer, biofuels and electricity. Here are some examples of this approach at work:

- Chicken grease produced from rotisserie chickens is converted into biofuel.
- Meat and bone scraps are processed through a rendering program. Rendering from the chicken complex in Lincoln, Nebraska, has been added to this program.
- Organic waste is converted into certified organic liquid fertilizer.
- Food is recycled at anaerobic digestion facilities to create energy.

Composting. In the U.S., Canada, Korea, Japan, Australia, Spain and China, some locations send organic waste to commercial compost facilities to create a nutrient-rich soil conditioner.

Waste to Energy (WTE)/Landfill. The trash from our in-warehouse compactors is hauled to waste-to-energy facilities and landfills. Our goal is to continuously keep food waste out of these compactors and use it for more beneficial uses in the food waste hierarchy, while being compliant with regulations.



Reducing Non-Food Waste

Costco is committed to reducing non-food waste through efficiencies and other programs. Here are several examples.

Donating

Costco has grown its program with [World Vision](#) to donate first-quality items that used to be destroyed, recycled or returned to the supplier. These items are donated to people in need around the world. More information can be found in the [Costco-World Vision Summary](#), which contains a list of the items donated and some stories that illustrate the impact of these donations.

Besides providing items to people in need, efficiencies are also gained, including reduced trips to the landfill and savings on trash fees for both Costco and our suppliers.

Summary of Non-Foods Donation

	FY18	FY19	FY20	FY21*	FY22*
Number of Pallets Donated (Pallets)	41,945	42,493	54,332	80,304	131,438
Product Value (\$, Millions)	N/A	\$76.2	\$79.9	\$137	\$278

*The number of pallets significantly increased in FY21-22 because our growing Costco Logistics program, which delivers appliances, TVs and other large items purchased on Costco.com, is now part of our donation program.

Recycling

We have developed programs to recycle a wide variety of materials (actual amounts are shown in this [Global Waste Stream Report](#)):

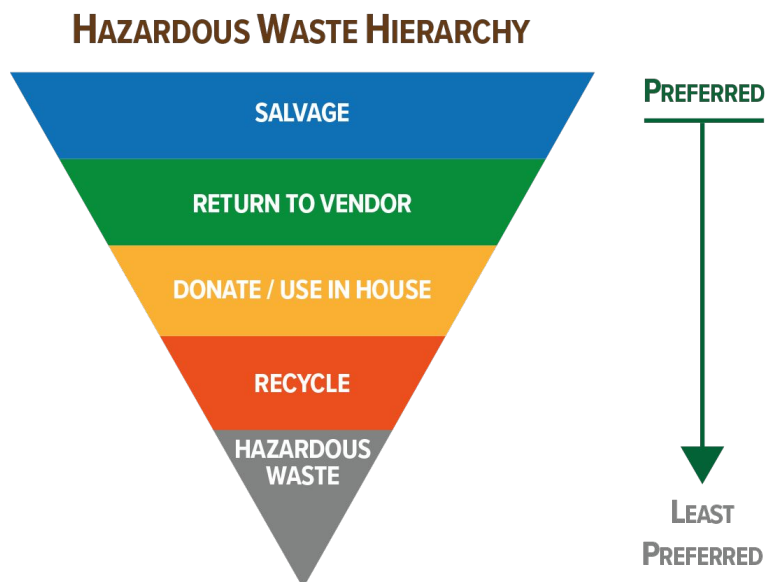
- **Corrugated Cardboard and Shrink-Wrap.** Warehouses routinely send shrink-wrap and corrugated material generated from daily operations to our distribution centers for recycling. For efficiency, we “backhaul” these materials, meaning they’re placed in empty trucks that have just delivered goods to the warehouse and are returning to the local depot.
- **Tires.** While 15% of our tires are resold, over 80% are recycled into several different beneficial uses like tire-derived fuels used primarily in cement kilns; crumb rubber used as an additive for road surfaces or pervious surfaces around roads, sidewalks and pathways; mine reclamation; daily landfill cover; and decorative mulch.
- **Car Battery Recycling.** Costco reimburses members their core fee when batteries are returned for recycling. Returned batteries are collected and picked up for recycling by Costco battery suppliers. Up to 99% of a car battery is recyclable and can be used to make new batteries and other products.
- **Paper.** Costco has established a recycling program for paper in our offices and warehouses to capture loose paper, coupon brochures, magazines and paperback books that are no longer usable or saleable. We continue to move to paperless programs when applicable.

- **Metal.** In FY20, Costco piloted a program with our depots to recycle scrap metal that cannot be processed through standard single stream recycling bins. During FY22, we have continued to expand this program. There are currently 498 U.S. warehouses approved to participate in this program, and we will continue to roll out to new locations where feasible.
- **Styrofoam®.** In certain locations, expanded polystyrene (foam) is densified and distributed to manufacturers that make picture frames, crown molding and other polystyrene products.

Reducing Hazardous Waste

Hazardous materials pose a risk to the environment, human health and/or the communities we operate. These include common everyday items such as dish soaps, detergents, batteries, light bulbs and electronics.

As with other waste programs, Costco follows a hierarchy to reduce or eliminate hazardous waste. Prevention is the most desired path when dealing with hazardous products. Here's a look at our programs to manage hazardous waste:





- **Electronic Recycling.** Costco maintains an electronic recycling program through approved, licensed recycling vendors. We are able to manage both member returns and company assets while ensuring the highest levels of sensitive data destruction alongside material recovery through the vendor's e-scrap shredding system.
- **Batteries & Light Bulbs.** Costco recycles household batteries and light bulbs from returned products or used internally in operations. Each battery and bulb is broken down to its rawest parts and recycled or repurposed accordingly.
- **Fuel Station Materials.** Byproducts from our fuel station operations are managed in ways to minimize waste. Used and drained fuel filters can be managed as scrap material.
- **Ethanol Recovery.** Items containing ethanol such as alcoholic spirits, perfumes, colognes, cough syrup, vanilla extract and hand sanitizers (classified as consumer chemical products) are hauled off-site, depacked and shredded at various facilities. The liquids are collected from the shredding process and batched for ethanol recovery. Various methods are used to separate and collect ethanol for final reuse as additives to new products or liquid fuels.

