

Speaker 1:

The coronavirus pandemic has disrupted our way of life, as well as the food supply chain.

Speaker 2:

Dairy farmers being forced to dump excess milk because restaurants and schools that would usually buy it are shut down.

Speaker 3:

Farmers across Idaho and Montana are stuck with mountains of potatoes.

Speaker 4:

Farmers are dumping about 3.7 million gallons of milk each day.

Speaker 2:

Produce farmers are burying their harvested crops.

Speaker 5:

5 million pounds of green beans, 8 million pounds of cabbage. We have to grind it up, back into the ground. That's the only choice we have and hope for a better day.

Jerusha Klemperer:

The supply chain disruptions during the pandemic that led to staggering waste like lettuce fields plowed under, milk dumped, livestock euthanized, they were shocking in their scale and senselessness. Seeing all of that waste, the loss of resources, the loss of life, and the loss of income was very upsetting to most of us. But what if you found out that during normal times, we are also wasting a lot of food, not at the same scale as during the height of the coronavirus pandemic, but up to 40% of the food we produce is lost or wasted. People just don't realize it. And instead of farmers and processors and distributors being financially devastated by it, it's actually all part of doing business all along the supply chain.

Jerusha Klemperer:

I'm Jerusha Klemperer and this is "What You're Eating," a project of foodprint.org. We aim to help you understand how your food gets to your plate and to see the full impact of the food system on animals, planet, and people. We uncover the problems with the industrial food system and offer examples of more sustainable practices, as well as practical advice for how you can support a better system through the food that you buy and the system changes you push for.

Ryan Nebeker:

Sometimes the food getting lost or wasted is a financial decision. So looking at the example of the pandemic, basically overnight enormous volumes of things like tomatoes, lettuces that were supposed to be shipped for all of these food service places, that all of a sudden there was no market for it. Nobody had any place to sell it and economically it would've been really expensive for farmers to harvest this stuff anyway. And so they just plowed it under. But if you can't sell it, there's no point in processing it any further and driving prices even lower. So even though we would think of it as making sense to

minimize that food loss, sometimes there's a little bit of what you'd call a perverse incentive to just waste the food because of how the economics works out.

Jerusha Klemperer:

That's Ryan Nebeker, research and policy analyst for FoodPrint. It turns out those perverse economics he describes are baked into the system, even when it's running as it should. Wasting food sounds wrong at a gut level. We probably feel guilty when we do it at home, but what's at stake, large scale? Why is food waste such a problem?

Dana Gunders:

The reason that food waste is such an issue is because it takes so much to grow, transport, cool, cook, and store food along the supply chain. And so we actually invest a huge amount of resources in our food system and when we don't eat that food, all of that goes to waste, right? And it just means that we have to grow and transport and cool and cook that much more food to feed ourselves as a population. And when you look ahead to 2050, the UN predicts we will need up to 50% more food to feed that population than we have today. So where is that going to come from? Are we going to still keep growing 30 to 40% more food than we need? Or are we going to use the food that we already have? If we have to keep growing more food, that will lead to us paving down more rainforests and converting more native grasslands into agriculture.

Jerusha Klemperer:

That was Dana Gunders, a food waste expert who heads up a kind of food waste think tank called ReFED.

Dana Gunders:

I think at the highest level we're after feeding our current, but also our future population in the most efficient way possible while still being nutritious and enjoyable, frankly.

Jerusha Klemperer:

We hear all the time that our food system is built for efficiency, right? It's all about maximizing product and profit. So how did we build such an inefficient chain? Why are we losing so much along the way, if it's built for efficiency?

Dana Gunders:

I struggle with the term efficiency. I think the way we think of that word right now is okay, these huge farms that just have a lot of mechanics and just this really big industrial system that in some ways is quite efficient. I think the challenge is that in some ways we have actually designed waste into the system and so while we're very efficient at transporting it around and those sorts of things, we choose not to use cauliflower if it's a little bit yellow. We choose to serve really large portions in our restaurants that not everyone eats. We choose to have really big refrigerators and fill them up and then not use all that food.

Mary Cleaver:

Food waste represents about 24% of our landfill inputs and it's the number one material in our landfills.

Jerusha Klemperer:

That was Yvette Cabrera, a food waste expert at the Natural Resources Defense Council. She explained that food waste is also a source of greenhouse gas emissions, a major contributor to climate change.

Mary Cleaver:

When it comes to the climate, food waste actually represents 4% of US greenhouse gas emissions, which is more than the entire US airline industry.

Dana Gunders:

That may sound like a small number, but actually it's equivalent to that of about 58 million cars worth of greenhouse gases or one in five cars coming off the road.

Jerusha Klemperer:

Dana and Yvette explained that the greenhouse gas emissions associated with food waste are twofold. There are the emissions associated with producing the food that doesn't get eaten and if it's something like beef, that's a lot of carbon and methane. And then there are the emissions from the food rotting in the landfill, a process that also emits methane.

Dana Gunders:

So earlier this year, ReFED released a new analysis. We took about 50 different data sets and analyzed 42 different solutions to food waste. What we found was that if those solutions were implemented fully across the entire country, every grocery store and restaurant, we would hit the target of reducing food waste by 50%. And it would cost about \$14 billion a year, but it would save about \$73 billion.

Jerusha Klemperer:

So when we think about an economy that very much needs a boost right now, and we think about how many hungry people there are in this country and around the world, and the fact that we urgently, desperately need to slow climate change, it starts to sound quite obvious that we should be eating more of the food that we produce. So where and why is all this food being wasted?

Mary Cleaver:

Food is being lost up and down the supply chain. That means that it was grown on the farm and left on the farm, maybe because of price fluctuations and the price for that specific crop dropped and the farmer can't justify harvesting that because it will cost them money. So they instead leave it on the field, which is something that happens quite often. It could also mean that there was improper storage on the farm.

Dana Gunders:

And then you have product specifications that exclude certain products. And so on the farm, our research has found that about half of what's left on farms is actually totally edible.

Jerusha Klemperer:

After the farm there's manufacturing, where raw ingredients get trimmed, processed and transformed into everything from canned tomatoes to so-called baby carrots, to vegetable stock.

Dana Gunders:

And I think there's a real opportunity there to capture more food. In manufacturing, the vast majority of the surplus there is in byproducts and trimmings. So it's tomato peels from making tomato sauce or potato skins in some cases or parts that are not edible, avocado pits or something like that. It's all of that and some of it is edible and we're seeing a lot of exciting movement in the up cycling world where people are finding edible products to make out of that.

Speaker 10:

Hi, I'm Anna Hammond, I'm the founder and CEO of Matriark Foods. Matriark upcycles farm surplus and fresh cut remnants into healthy, affordable products for food service, schools, hospitals, food banks, places where people are fed on a large scale every day. Matriark has developed a very innovative supply chain working with large, fresh cut facilities to capture their wasted food stream. We pay them a nominal fee for part of the vegetable. So they're recouping money that's already been spent, they're recouping the natural resources that have already been used to grow, harvest, transport those vegetables. So it works as a business model for large scale facilities to recapture some lost income and also they don't have to pay to send this byproduct to landfill.

Jerusha Klemperer:

What she's describing is upcycling. Matriark takes vegetable waste and purees it into broth. There are all kinds of new companies cropping up who are taking byproducts like spent brewers grains, which are what's left over after you make beer or whey, which is what's left over after you make yogurt or cheese, and turning them into other edible products. There's even an upcycled food association that certifies these companies, ensuring that at least 10% of the ingredients they're using would've actually gone to waste if they hadn't used them.

Speaker 10:

Our food system was developed to create great efficiencies, to process large amounts of food, get it out to people, lots of people at far distances for as little money as possible. And in order to create those efficiencies, there are all kinds of inefficiencies that are created. So if you imagine, let's just take a restaurant chain, and I say this because one of our suppliers cuts the onions for a restaurant chain. In order for that restaurant chain to make its sandwiches extremely quickly and get as many out as possible and have them look perfect for the consumer, they only use the center cut of the onions. It's like a perfect circle and that allows them to like put it in a box. So it fits perfectly in a box. And then they can just put it on the line, every sandwich looks the same. But both ends of the peeled onion that are also cut are going into the garbage. So we're capturing those, we're capturing the inefficiencies of an overly efficient food system and really sort of rethinking the way we think about efficiencies.

Jerusha Klemperer:

But right now, capturing this waste and using it means going against the usual rhythms of food production. It's not currently the way large scale production is designed.

Ryan Nebeker:

The grocery store's where things get interesting because grocery stores are really interested in maintaining their customer base. And one of the easiest ways for them to lose the customer base is for them to not have something.

Dana Gunders:

There's so many things happening at the grocery store. I think really it stems from the fact that the average grocery store manages somewhere between 40 and 50,000 different products. And so if you can imagine trying to manage that many different products so that they're available to everyone and kind of having to guess at how much you need on the shelf and guess ahead of time, because you need to order it. And so it's just a really challenging forecasting and inventory management problem.

Ryan Nebeker:

If you go to the grocery store once and you don't have what you're looking for, you're quite likely to pick another grocery store next time. So this motivates them to keep a lot of things in stock that they don't sell a lot of.

Dana Gunders:

There's been a lot of movement on applying new technology to forecasting and inventory management with grocery stores. So you have a few different companies that are essentially using machine learning to identify patterns for those 40 to 50,000 products that grocery stores need to forecast in a way that humans could never do. And so it's a really good application of big data and helping them figure out what product they need and which store and when, and how much and all of that.

Jerusha Klemperer:

So grocery stores are trying to match consumers' expectations of abundance. When we picture the grocery store, right, we picture full shelves, produce stacked high, everything fresh and misted to perfection. And we expect that from restaurants too, they also need to sell this concept of abundance.

Dana Gunders:

Our research has found that about 70% of all of the waste in restaurants is actually happening on people's plates after the food is sold, and it's just food that people are not eating. So that's a place to really look at our portion sizes and how we're serving food.

Jerusha Klemperer:

Looking at portion sizes is one way to correct this, but there's also how restaurants handle waste after the fact. Both the surplus food in the back of house, and also what happens to customers waste once it returns to the kitchen. I talked to Mary Cleaver who ran a very successful green catering company and restaurant in New York City for many years, The Green Table and Cleaver Company, right up until the pandemic. She's now focused solely on her chicken farm.

Mary Cleaver:

An important part of thinking about waste and food is just to think about not creating it in the first place and that begins from an economical perspective, I think. In thinking about how to run a business, first of all, you have to think about how to do it on a sound economic basis. But for me, it was always important to do it on a sound ecological basis as well. So addressing food waste was a big part of that. And again, the best approach is to try to not create it to begin with because whatever you don't use, you're also paying to have carted away.

Jerusha Klemperer:

DC chef and restaurant owner, Tim Ma described a similar approach to me.

Tim Ma:

I learned pretty early on when I opened my first restaurant and being a chef and the owner who had to look at the finances and cash flow and all that, I realized how much we did waste. And so, I spent half my time cooking in the other half of my time looking within our garbage to see what our cooks were throwing away. That became very important to me because I ran out of money. And so when you run out of money, you start to see where it all goes. And then I think it just became second nature out of necessity to stay in business, to be like, okay, look we have to figure out a couple things. One is that what we're throwing away and why we're throwing it away. Two is how we designed our menus and the way that our restaurant operates, that are we utilizing everything to the maximum of its usability? And so you learn a lot about what you can use in, around the vegetable or chicken very quickly, when you don't have money to spend.

Jerusha Klemperer:

We've covered how institutions are managing food waste, but what about you? How much are you wasting? And what can you do about it?

Mary Cleaver:

About 40% of all of the food that is wasted in the US happens in consumers homes.

Jerusha Klemperer:

40%. So many other problems with our food system are so large and intractable, it's hard to feel like the personal changes we can make will have an impact. But 40% of food waste happening in our homes means there is huge potential there to make changes and make a difference. There are practical changes you can make, tips and tricks for buying less and wasting less and composting more, and we're going to get to those. But it might start first with a shift in perspective.

Alicia Kennedy:

We don't care. We don't care about the quality of butter we care about an abundance of butter. We don't care about high quality meat we care about, is there always a humongous amount of meat at the supermarket? It's never about quality, it is always about quantity. That is US food culture and I'm sure I sound like a jerk for saying that, but it's just a food culture not based in any sort of real care about food. It's corporate, it's consolidated, it's based on the idea that our power as a nation is built upon our ability to waste things.

Alicia Kennedy:

My name is Alicia Kennedy. I have a weekly newsletter on food, media, culture, and politics, and I'm at work on a book about ethical eating for Beacon Press. Waste is part of the ideology of being in the US. It's just so second nature to throw things out. We've lost a lot of culture around preserving or anything like that. It's just, I can get whatever I want at any moment, and that's the basis of our food culture.

Tim Ma:

Yeah, it's the abundance mindset versus like the scarcity mindset. Maybe our generation or specifically, maybe even in America, as opposed to the previous generation. My parents were immigrants from war

torn China and Taiwan, and I guess, quote unquote, escaped to America or came to America for a better life. And so I was actually born in America, but as an immigrant coming in into the United States and especially Arkansas, which is where they ended up from Taiwan, things were very tight. So we grew up very, very poor.

Tim Ma:

As a function of that, as with every family, a big expense within your family's budget is actually food. And so we were taught very early on in a very tough immigrant mentality that you never not finish what's in front of you, even if you are full blah, blah, blah. Especially if you didn't finish meat or vegetable, rice could maybe get away. But if you didn't finish meat or vegetable, you were going to get hit with a back scratcher. Just in general, the Chinese culture, and my parents always have this they still have this to this day, nothing gets wasted.

Ellin Rothstein:

We are basically in the grips of consumerism and in the grips of more and more and more choice. And so you go somewhere and you buy strawberries in January. And if you have an apartment refrigerator like mine, I will eat some of them and then they will disappear into the back to become a science experiment. But we've been indoctrinated to consume whether we need the stuff or not. I think eating was probably more fun when you couldn't get strawberries in January.

Jerusha Klemperer:

That's my neighbor, Ellin Rothstein. It's not a new idea to approach cooking and eating with an eye toward thrift, conservation, or mindfulness. And to speak of this country containing only one culture, even if it is the dominant or loudest culture, is of course not quite right. People in this country come from many different cultures, including the indigenous peoples who were here long before settlers and colonizers. And whether it's due to physical factors like geography or complicated social ones like inequality and racism, different cultures have very different ways of thinking about food and the resources it takes to make it.

Jerusha Klemperer:

And maybe now is a good time for recalibration, to listen to indigenous communities, to listen to our grandparents and elders, after some of us saw for the first time in our lifetimes bare shelves at the grocery store. I spoke to Vincent Medina and Louis Trevino of mak-'amham, an Ohlone cultural institution in the East Bay in Northern California, that's home to Cafe Ohlone. I wanted to know how their Indigenous heritage informs their relationship to food.

Vincent Medina:

So I'll introduce myself and then my partner Louis, he'll introduce himself. And I'd like to introduce myself first though in Chochenyo language, which is the language of my family and my community. We're the native people here in the East Bay. My family specifically comes from an area right here called halkan, which is an old tribal nation, the oldest area of this space and the oldest name of this area, and we've lived here forever, consistently.

Vincent Medina:

So [foreign language 00:19:58] Vincent Medina. [foreign language 00:20:01].

Louis Trevino:

[foreign language 00:20:01]Louis Trevino. [foreign language 00:20:18].

Vincent Medina:

Louis and myself just shared in our respective Ohlone languages. Louis is speaking in Rumsen, which is the Ohlone language of Carmel valley. And once again, I'm speaking in Chochenyo, which is the Indigenous language of the inner East Bay. Louis and myself were both the co-founders of mak-'amham, which in Chochenyo language it means our food. And out of mak-'amham, which is a community organization that's all focused on strengthening traditional Ohlone foods, as well as language and every other act of culture that's being actively restored right now, as well as culture that's been carried on. We're finding ways to make those more accessible and to see them passed on intergenerationally with our elders blessings and their guidance.

Vincent Medina:

Out of mak-'amham cafe, Ohlone came to be. We're the co-founders of Cafe Ohlone, which is the only Ohlone restaurant in the world and a place that we celebrate our living culture every single meal, where we provide a physical space for our Ohlone community, and also where we can teach the public about how beautiful our culture is over very dignified and sophisticated plates of Ohlone food. So we're proud of this work that we do, but really want to acknowledge and center our elders who make all of this possible, make the conditions possible for us to be doing what we're doing. And also we're grateful to be able to see culture growing stronger these days.

Jerusha Klemperer:

I was reading something and was struck by this quote that said, "Native people are not separate from the environment, we are the environment." And that certainly reflected this concept of "all my relatives" or "all my relations," and what I've heard described as a kind of a contract between animals and plants and human beings that you need to honor. And obviously something like wasting food in the process of harvest or preparation or serving, would seem to fly in the face of a contract like that.

Vincent Medina:

So there is, growing up, a value, well, many values that we're raised with, but one of those values is to remember interconnectedness between all different types of life. And what I mean by that is that, and this goes back, way back into the ancient times about how we're supposed to treat other communities or as they're often referred to, because our people lived with so much abundance in those old days, there's often referred to understand the sovereignty and the personhood of those plants and of those animals. And one thing I love about how they're often referred to, different plant communities or different animal communities, is they're referred to often as being nations of their own. And that's also recognizing their groupings together, but also their individualism, and also their distinctness. Now understanding that and understanding traditional land stewardship practices that are again very specific and place based to this area, our ancestors, when we came to be here, because we believe that we created in this area, there's this very, very long and complex formative time of creation.

Vincent Medina:

But when we came to be, and when the world was right for us, there was all of this abundance that we were birthed into here in this place that we're speaking to you from. And in those original teachings,

we're also taught about how to ensure that abundance grew stronger instead of weaker. And this is embedded in those beginning times. Now, one of those ways of ensuring abundance grows stronger is through a series of managed burns. Those managed burns, what they do is they take away the overgrowth that today is leading to these catastrophic wildfires we're seeing more and more frequently in California, like the turning the sky orange. It's apocalyptic, the way that they look these days. But our people always knew that California, this part of California, it needed to be burned otherwise we would enter a fire drought like what we're in right now.

Vincent Medina:

And without those burnings, also, it wouldn't take out the overgrowth, but beyond the overgrowth that's there, it's much more. Those burns, what they also do is they enrich the soil with ash and nutrients. They take out all of the overgrowth and they open up middle spaces for other life to be able to flourish. By also having these low heat controlled burns, they stimulate these interconnected plant communities to grow stronger instead of weaker. When our people would go out traditionally during this time and let's say, if they would dig for those bulbs or our Indian potatoes, what's traditionally done is a digging stick usually made out of Manzanita or some hard wood like Oak is taken out. And then those bulbs would be taken out. The young growths of those bulblets would be picked off and then dropped back into that loose soil. When the wind comes, those seed plants would drop their seeds into that loose soil.

Vincent Medina:

And what that would mean is that the next year's harvest would consistently be larger, over and over. If you can imagine doing this multiple times a year for thousands upon thousands and thousands of years, you're going to have every type of food that you want. And something that we're taught from a young age as a Ohlone people is to be able to show respect for different life, to be able to show respect for animal life, to be able to show respect for plant life. And also to recognize, like we said earlier, their personhood. Now this is evident in multiple different ways but one way I want to bring up is, our most traditional food here in this part of California is acorn. Acorn is our staple food and it's made into a soup and into a bread, but going from gathering the acorn to curing them for six months to shelling them, skinning them, grinding them in a mortar until the flour is so fine it fits into the weave of a finely woven basket, leeching the acorn, and then making in a soup into bread. It's a long process that's been carried on.

Vincent Medina:

But when acorn comes, we're taught by our elders even to this day, that you don't just go right when the acorns come to gather, but we have to be patient because the first drop of the acorn always has to be for animals so that they can eat too. It has to be for those woodpeckers so they could store up their granaries. It has to be for squirrels, for the wood rats out there. It has to be for all these other animals that are there. So that for the deer, of course, so that they can also be able to have enough. And when animals have enough, there's a trickle down effect on other things, too. If you go and cause problems to one thing, it's going to eventually trickle down to humans and our ancestors always knew that, that we live in a world that's interconnected, where it's not just centered on us and it's something that's much more it's much bigger than just humans that are here.

Jerusha Klemperer:

I asked Vincent and Louis how the respect and care that went into sourcing their ingredients extends to their food preparation.

Vincent Medina:

Well, through a few different ways. Part of every single step is intention based. And even when we're cooking the food we have to, when we're starting to prepare the food, we have these rules in our community that you have to be in a good place. You can't be in a grumpy mood, you can't be sour. You have to be in a good place when you're starting this whole process, because those things also go into that food that you're preparing. So making sure that from every step of this process, that there's intention and when we're cooking those foods, also remembering what those foods represent to us.

Dominic Palumbo:

I have a process where I have to decide what I'm going to grow any particular season.

Jerusha Klemperer:

That's Dominic Palumbo of Moon In The Pond Farm, who we interviewed at length for our episode on chicken.

Dominic Palumbo:

So I'm thinking, "Okay, I want to grow broccoli this upcoming year." I researched the hundreds of different varieties of broccoli, decide which one might work in my application, what might taste great, what will be nutritious, what will grow well in my fields, under my conditions, et cetera. Then I select those seeds and I purchase those seeds and I wait for them to arrive. And then I take each individual seed and I put it into a little growing medium, a little cell, and I grow that plant. And then I take that little plant and I put it into a little larger thing, and I have a little larger plant. And then I take those plants after caring for them for weeks and months, then I take them out to the field and I put them in the field and I place them after having cultivated the soil and grown a crop the year before to nourish that broccoli plant.

Dominic Palumbo:

And then I mulch and I water it and I watch it and I wait for it to grow. And then I harvest it and the stem is this wonderful, broccoli, chunky bit that I watch people cut off and throw away. And I think, what the hell did I go through all that for? And then I go to the grocery store and I buy something at the grocery store and I think, who thought about this? Who's in the field? Who picked this for me? Who shipped this halfway across the country or all the way across the country? And then we are throwing it away? This is crazy. And the guy had to unload the truck and he had to put it on the shelf. And then the checkout person had to put it through the scanner and all of that so I can chop off half it and church it. Doesn't make sense.

Jerusha Klemperer:

For me, it calls to mind some of the writings of MFK Fisher, one of our great food writers. In her book, *How to Cook a Wolf*, she wrote, "Butter, no matter how unlimited is a precious substance, not lightly to be wasted. Meats too, and eggs, and all the far bought spices of the world take on new significance, having once been so rare." It was written in 1942 when our country was experiencing wartime food

shortages, and also in a time when many adults remembered the depression and the thriftiness they were forced to live with.

Ellin Rothstein:

Look at what happened just in terms of restaurants and food. When I was a kid, you went to a restaurant, you ordered something, they put it in front of you and it was just enough for you to be satisfied. Or we took a doggy bag home if... Who does that now? Now you go to a restaurant, you don't need two pancakes you need 10. You don't need a nice piece of something, you need a plate that cannot hold the entire side of beef that they have given you. And what is that? That's just waste. And maybe people will take it home, but most people don't eat leftovers.

Katherine Sacks:

I think one of the main reasons that food waste happens at home is that people have food fatigue. They want to have something different every meal.

Jerusha Klemperer:

That is Katherine Sacks from the FoodPrint team, who writes a lot for us about cooking with less waste.

Katherine Sacks:

So I think that one of the things that we can shift is our apprehension to leftovers. If you're really not a leftovers person, then try to keep your meals smaller. The other thing with leftovers is that you can turn those into a new meal, as opposed to just eating the same thing. You can take roast vegetables and turn them into a frittata or take roast vegetables and turn them to a soup. Try to jazz them up in a way that excites you to eat them again.

Jerusha Klemperer:

This notion that food must be perfectly fresh to be enjoyed or be delicious or safe to eat, it's one we have to start to break down.

Katherine Sacks:

So I think that one reason why people waste food at home is because they get really worried about expiration dates and date labels. They are really accustomed to seeing that a carton of milk has a date on it and once it reaches that date, it has to get thrown away. That kind of date labeling also translates to things that might not even have a date on them, but we're kind of under this impression that if something's in the fridge for a week or two, it must be bad.

Jerusha Klemperer:

Expiration dates aren't codified or regulated in any way, except for infant formula. So they're serving lots of different purposes. Sell by, best buy, purchase by, they don't in the end tell you very much.

Katherine Sacks:

We like to tell people to think about the food, smell the food, look at the food, look for signs of spoilage. Smell your milk. If it smells sour, it's bad. But if it doesn't, it's not likely to be bad if it's a couple days past the expiration date.

Dana Gunders:

I've always been fascinated that five or 10 cents can really sway someone when they're at the grocery store to buy one thing or another. And then they get home and the math goes out the window and they might throw a third of that product away, and they don't realize they just threw \$2 of cheese out.

Katherine Sacks:

People kind of have this attitude of like, "Well, if I don't want to eat this, I can just throw it away and get the thing I really want to eat." But at the same time, that's literally dollars being thrown down the trash. So I think doing a food waste audit, and really looking at how much food you waste in a week or in a month can really help to see like, "Oh, this is how much food I'm wasting. And this is how much money I could be saving."

Katherine Sacks:

Fridge and freezer organization is key to reducing food waste. So as you are purchasing things, you're putting them at the back or below, and you're moving the things that are older to the front. Shopping small, reducing the amount of food that you're purchasing at a time. There's so many little things you can do, little tips and tricks. On FoodPrint, we have a lot of articles that are looking at specific ingredients. We have one on mushrooms, how to use the stems to make your own mushroom stock. We have one on apples, how you can use the cores to make vinegar, and more. I think we have about 30 at this point, different ingredients that we're offering food waste tips on specifically.

Mary Cleaver:

One of the things you can do that's very helpful, if you're peeling your carrots or any kind of vegetable scraps, onion skins, and all that, save all those vegetables. If you're taking herbs off of the stems, save the stems. You can save all those scraps, refrigerate them, and then use them to make vegetable stock or any kind of stock. And also freeze things. Freezing is perfectly sensible. If you decide you're not going to use it, freeze it so you can use it at a later date

Jerusha Klemperer:

From personal experience, I can attest that even if you work hard to eat leftovers and use up all the bits and bobs in your fridge, you won't always manage to rescue everything. And some things, even if you do find a use for them like corn cobs being boiled for stock, they'll need to be gotten rid of eventually. These are things you can compost. This is the last step. Basically the last step in the supply chain where you can still do good, where you can divert that waste from the landfill. And when you start collecting it in your freezer and have no room left for ice cream, you start to realize just how much organic waste a household can produce.

Katherine Sacks:

The goal of composting is rather than sending your food scraps to the landfill, you're using your food scraps to create compost. The food scraps break down and then they create this material that's great for gardening. You can do it in a lot of different ways. The easiest way is to find a drop off site or a private company that will come pick it up, but not everybody has that option and some people want to really get their hands dirty. So there's ways to do it indoors, you can do it outdoors, you can have a small composting bin on a patio, you can have a really large composting pile in your backyard. There are so many different methods. We put together a guide, it's our ABCs of reducing food waste. We have 26 tips

in there. Some are really simple and some are bigger changes, more lifestyle changes. I also found that there were some apps and projects that connect shops and restaurants with consumers so they offer end of the day specials.

Jerusha Klemperer:

We talked to a few people about their experience using some of these apps.

Speaker 16:

The app that I've been using is called Too Good to Go.

Speaker 17:

Here's how I take a snack break in New York City for less than \$5.

Speaker 16:

I actually think I saw a TikTok video about it, of some girl who lives in the city and she was like, "I got this great app, blah, blah, blah." So I looked it up.

Speaker 17:

I headed to the Too Good to Go app earlier to book a surprise.

Speaker 18:

There are many talks about it actually. I saw a lot of them.

Speaker 23:

So I've been using this app that fights food waste.

Speaker 16:

There's definitely a lot of restaurants on it that are pizza focused. It's perfect for if you're at the end of the night and you want just something to snack on, but I do every now and then, get a bag from a grocery store.

Speaker 18:

There's a grocery store around the corner that regularly has food that technically has an expiration date that is passed, but doesn't really go bad. And so that's always really helpful. It's a lot of yogurt and produce and things like that. Honestly, my primary motivation was free or very cheap food. Also as someone who has worked in food before and seen the massive amounts of food that does get thrown away every day, I thought it was a really nice two birds, one stone.

Jerusha Klemperer:

These personal strategies for shopping, storing, and cooking your food are important. But what can policy and legislation do to help us at home? To help farmers, help manufacturers and processors, help grocery stores and restaurants, help make it easier for all of us to reduce food waste? NRDC and ReFED were both part of a coalition of organizations who put forth a suggested food waste reduction plan to the Biden administration. Yvette Cabrera from NRDC dug into the details for us.

Yvette Cabrera :

NRDC, ReFED, the World Wildlife Fund, and the Harvard Food Law & Policy Clinic banded together to really generate a unified voice on how the federal government, both the Biden-Harris administration and Congress, can act on food waste. And so we outlined a couple of key action areas. The first one is really about investing in prevention and keeping waste out of landfills. There's a couple of different ways that we think they can do this. One is by offering funding for states and cities that incentivize organic waste measurement, rescue, recycling, and prevention.

Jerusha Klemperer:

Some cities and states have already begun tackling this locally, enacting laws that require some kind of processing of food waste to keep it out of the landfill and in some cases, incentivizing businesses to do it.

Yvette Cabrera :

Many people know that we rejoined the Paris climate agreement. And as part of that, every country that is committed to that has to outline a plan for how they will meet those goals in the Paris climate agreement. And we're really asking the Biden-Harris administration to include food waste in that plan, because we know it is a huge greenhouse gas emitter.

Jerusha Klemperer:

Finally, she explained to me the last action area centers on the consumer. So that would be funding consumer awareness campaigns or making sell by date labels less confusing by standardizing date labeling. I asked Ryan Nebeker, our policy and research analyst to tell us about any existing legislation on the food waste front.

Ryan Nebeker:

So in terms of more recent legislation, there are two interconnected bills that are up before Congress right now. One of them is called the Zero Food Waste Act and that one creates a grant program that's run by the EPA and they give out money to schools, governments, nonprofits, other organizations that qualify so that they can start their own food waste reduction projects. The other kind of connected half of this is called the COMPOST Act, which is actually an acronym for a much longer title, but it is about composting. That one works through the USDA. The Department of Agriculture runs a bunch of conservation programs for farmers so that if they want to do things like reduce erosion, they can get some money to build up the infrastructure they need to do that. The COMPOST Act would add composting to the list of priority projects that can get funding.

Jerusha Klemperer:

Ryan explained that these have a better chance at succeeding than previous legislative efforts.

Ryan Nebeker:

There are a few members of Congress who are really passionate about food and agriculture issues and sustainability end of things. One of them is Maine Representative Chellie Pingree, and she's introduced a lot of bills around food and agricultural provisions over the years.

Ryan Nebeker:

One of the bills she's introduced in the past and gotten some support on is this idea that we really need to clarify how sell by dates, how expiration dates, how best by dates work, because there really is just no standard. It's really cool that you can look at a package of food and if you have specific food allergies, you usually know if it's safe to eat, you know the nutritional content of that, you know where it came from. We know a lot about the food we eat. It's crazy that there's no comprehensive regulation on when the food is still good or not.

Jerusha Klemperer:

It's hard to say whether or not this patchwork of local and federal legislation is enough to make good headway on food waste, but it's clear that personal habit changes need to happen alongside common sense, large scale changes to the system. The harder thing to change of course, is the dominant culture. The one that expects abundance, accepts overproduction, and devalues the resources that go into producing the food that we eat. The one that has us in an extractive relationship with plants and animals, seeing them as separate from us, there to fulfill our needs.

Tim Ma:

A lot of people just don't think about where it's coming from and then at the end, where it's going. And that's not just for food, we're a very indulgent generation. We think that there's an endless supply of it and then we think that the stuff we don't use just integrates back into the world. And that's just not true.

Jerusha Klemperer:

If you found yourself wanting to hear more from Cafe Ohlone founders, Vincent Medina and Louis Trevino, stay tuned later this season for an additional episode that contains the entirety of our interview with them. What You're Eating is produced by Nathan Dalton and foodprint.org, which is a project of the Grace Communications Foundation. I'm your host, Jerusha Klemperer. Special thanks to FoodPrint staff, Ryan Nebeker and Katherine Sacks, to Dana Gunders and ReFED, to Yvette Cabrera and NRDC, to Mary Cleaver, to Vincent Medina and Louis Trevino of Cafe Ohlone, to Tim Ma, Alicia Kennedy, Matt Truesdale, Rachel Hjudlinsky and Ellin Rothstein. You can find us www.foodprint.org, where we have this podcast, as well as articles, reports, a food label guide, and more.