

RAHUL PRASAD: Thanks Christina!

Our next speaker is Dagan Kay. Dagan is the co-founder and CEO of Produce Mate, a mission-driven food waste startup dedicated to reducing wasted food and its massive impact on our planet. He is a recent University of Portland philosophy graduate, a Stanford University Innovation Fellow, and a serial entrepreneur at the age of 24. He describes himself as an eternal optimist and an absolute foodie. With “Surplus Food: Why I’m An Optimist About Climate Change,” here is Dagan Kay.

**‘SURPLUS FOOD: WHY I’M AN OPTIMIST ABOUT CLIMATE CHANGE’
– DAGAN KAY**

DAGAN KAY: Growing up, I wouldn’t be excused from the dinner table until my plate was sparkling clean.

Not that it was too much to ask, my Mom is an amazing chef, but I was probably too busy building potato forts with gravy moats to realize the lesson my parents were trying to instill in me, something I now consider to be one of my most cherished ideas- that food is valuable. This may strike you, as it should, to be a widespread belief. But the fact is this: we make enough food to feed the world one and half times over, yet globally, a staggering $\frac{1}{3}$ of the food we produce ends up in a landfill, most still perfectly edible, while 1 in 9 people go hungry worldwide. From the farm to grocery stores to our own dinner table, perfectly edible surplus food is being wasted all across the supply chain. This is bad for 3 main reasons:

One, it wastes all of the resources required to grow, make, or raise that food in the first place.

Two, wasted food contributes 7% of global greenhouse gas emissions contributing to climate change.

Three, more than 800 million people struggle with hunger, and during the Covid-19 pandemic? Nearly 1 in 4 American households experienced food insecurity last year

What’s really tough to swallow for me is that, in the wealthiest countries, 37% of food waste is actually generated by... us! At the consumer level. Think: the zucchini at the back of the fridge, the leftovers from your cousin's birthday party that nobody got around to eating, or the baked potato you couldn’t help but

order, but went cold halfway through and ended up in the trash can at the steak-house.

My parent's lesson is no longer the pervasive story of meal time in the USA. Rather than treating food as a valuable resource, we tend to take it for granted. There's something darkly ironic about kale going moldy in my crisper drawer while millions of our most vulnerable have limited access to affordable, nutritious, fresh food in the first place. Still, every year, the average family in the US sends 800 lbs of food to a landfill, which costs them \$2000 and contributes greenhouse gases equivalent to 2 metric tons of carbon dioxide emissions. How might we begin to rebuild our broken relationship to food?

By the end of our time together, I hope you will have learned a little bit more about the problem we're facing, then I'll explain why I'm optimistic about our chances at working toward a solution together, and lastly, I hope you'll leave feeling more empowered to deeply value the food you eat.

Here's my suggestion: of all of the choices we can make to live better lives, or to live more sustainably, making sure that more of our food gets eaten is the best and easiest place to start. From seed to dinner scraps, even what we don't get around to eating shouldn't be thought of as waste, but rather as a valuable resource right through to the end. I'm asking that we reprioritize food as something invaluable not only to human life, but as one of the shining highlights of each of our own little slices of the human experience. In the process, we can feed the hungry, help mitigate climate change, save loads of money, and get to eat more delicious food. These are problems cancelling each other out; it's a win-win-win-win-win.

Let's say a bit more about the problem at hand. Food production and transportation account for 30% of our individual carbon footprint. After all, it takes a lot of effort and resources to plant, grow, harvest, transport, package, store, sell, and prepare the food we eat.

I absolutely love peaches, so let's look at a peach for a quick example. Did you know that the average peach needs 142 gallons of water to grow? Or that as many as half of them will never make it off the farm, while another 1/3 may not qualify for the grocery store's beauty standards? As in, too ugly or misshapen to be put on display. Plus, it travels an average of 1600 miles before it's eaten, roughly the distance from Fresno to Minneapolis, or 29 hours straight of driving. By the time you add up all the waste at the farm, at the packing facilities, grocery stores, and at the consumer level, as many as 70% of the peaches we grow won't get eaten on a really bad year.

All this for a single peach. Imagine the resources behind the mountains of food for sale at any big box grocery store. Worse still, food is the single largest occupant in US landfills. There, rather than breaking down naturally into compost, it releases methane as it decays, a greenhouse gas 30 times more potent than carbon dioxide.

All along the supply chain there are unsustainable, inefficient systems with waste baked into their processes. We essentially mass-produce food like it's any other product; but food is not like every other product. We need to shift from an abundance mindset, from thinking that these resources are unlimited, to building more sustainable, circular, localized models across the entire food system. Wouldn't it be cool if our food was always grown within 250 miles of where it's eaten? Or if every farmer could selectively grow tomatoes to create new flavor varieties year after year rather than trying to perfect their shape and size?

In their newest flagship report on the state of the planet and climate change, Project Drawdown lists reducing food waste as the single most impactful solution we can implement for mitigating or reversing the effects of climate change.

I'd like to do some rapid-fire elevator pitches for a few specific solutions in the food waste space, in hopes of shedding light on a larger trend - that this is a fight worth fighting.

Let's start with ReFed - a national nonprofit dedicated to ending food loss and waste across the U.S. food system by advancing data-driven solutions. They've compiled research and built many amazing tools, from a policy finder, to a purposeful action plan to achieve a 50% food waste reduction by 2030. They're coordinating massive scale solutions across multiple stakeholders and verticals, and their website is full of amazing information, be sure to go check out ReFed.

In the investment world, Kroger's Zero Hunger Zero Waste Foundation has mobilized over \$15 million to teams trying to address these fundamental absurdities in our food system. They're but one example of the sort of investment we're seeing in the space right now.

Or take The Wonderful Company, who make the Pom Wonderful drinks, among many other products - they're hosting a \$1M innovation challenge, looking for creative ways to repurpose the 50,000 tons of pomegranate husks leftover from production every year. The winners are set to be announced any day!

We're really only scratching the surface here, but I'm happy to say that beyond these examples, there are hundreds of startups, grass-root organizations, and

small community movements making strides to bring global attention to these issues. There's a palpable sense of momentum among the hard working people I've spoken to across the food industry. It was that very momentum, along with plenty of guidance along the way, that drove me to help found Produce Mate. We're a mission-driven food waste company, dedicated to reducing wasted food and its massive impact on our planet. Our first product, the Produce Mate is an antimicrobial silicone kitchen mat that extends the life of your fruits and vegetables. Simply place one in the crisper drawer of your fridge, or on the countertop, store produce on top, and the mat fights bacteria that contributes to spoilage. Less bacteria means longer lasting fruits and vegetables!

Like many of you watching, I found myself completely taken aback when first learning about the coming realities of climate change. My eternal optimism, and a healthy dose of naivete, drove me to dive in headfirst to be involved with the solutions that might help ease the suffering caused by climate change to the best of my ability. In building Produce Mate, I've been able to work for the past several years interviewing experts, compiling research, and trying to understand the gaps in our food system. The more I learn, the more optimistic I feel, and the more I realize that we reap the benefits of avoiding waste. Best of all, we don't all have to start non-profits to actually have a big impact. Let me explain:

It's widely accepted that to meet our most ambitious climate change goals, or indeed, to stand a chance at mitigating or reversing the effects of climate change, we're going to have to make big behavioral changes to our personal and consumer habits.

That's tough. It's tough to convince people to change in a significant way, particularly when their choices only seem to make a drop in the bucket of a problem so large that it spans generations, and the entire globe. You may never meet the people whose lives you save by cutting your carbon footprint down. Indeed, we're facing a massive challenge and many of the best estimates of what's to come are getting more pessimistic. In the face of this pessimism, I'd like to reiterate something for you to get excited about:

If your family managed to cut their food waste to zero for an entire year, you would save roughly \$2000, could have as much as 500lbs of food to eat or donate, and you would cut your carbon emissions by as much as 2 metric tons, or roughly the equivalent to driving a car 4000 miles.

For that dream to become a reality, I'm here to speak up for food, and to ask that you join me in imbuing into our culture a deep sense of value for what we eat. I think we can do that by refocusing our beliefs to reflect three key ideas:

Be aware of areas in your own life where food goes uneaten. There are loads of easy ways to cut back, from making a grocery list, to freezing your leftovers. In fact, if you want to try something super easy after this talk, reorganize everything in your fridge so that you can see everything inside of it. I encourage you to do a bit of research on these and other easy things to try at home. Because we're responsible for almost 40% of the problem, small changes at home really will add up in the case of wasted food.

Food is valuable from seed to compost. We need to call the "food waste problem" what it really is - a "waste of surplus food that could have fed the hungry and of the resources that went into making it".

Close the Loop, and like my parents always told me, Eat your Food. I invite you to think about times in your own life where a meal at the end of a long day brought you together with loved ones. Imagine the ripest heirloom tomato you can possibly picture covered in sea salt, or think about the borderline spiritual joy of drinking a tall glass of fresh squeezed orange juice. When you begin to cherish every meal as among the best moments of your day, eating all of your food, and donating or composting what you don't get around to eating, eventually becomes second nature.

I'd like to leave you with a story about the most delicious thing I have ever eaten. I was travelling with my girlfriend, her name is Elysse. It was an amazing October road trip to see the autumn colors on the Oregon Coast. We stopped in a small seaside town at a local fruit stand and purchased what I thought was a perfectly ripe plum. A bit bigger than a plum, the sign sticking out of the pile of fruit said "Pluot". I know, I hadn't heard of it either, but turns out it's a cross between an apricot and plum. Something about the unexpected burst of flavor, the deepest red color, and the pure childlike joy of biting into something completely new to me. I remember the juices running down my chin and staining the front seats. All of these deep emotions tied to a single piece of fruit. Now, I see that each and every piece of fruit is just as valuable as the one I enjoyed that October day.

Those little human moments add up to a lifetime of choices and memories. Now facing the existential threat of climate change, we need to be conscious of overconsumption and do our best to avoid wastefulness. Because food is such an integral part of our lives, and makes up such a large slice of our carbon footprint, small habitual changes in your own life really will add up to create a larger impact. As we work towards tackling world hunger, and begin properly making use of our surplus food, I invite you to join me and the countless others who have inspired me by making a commitment to waste less, eat more, and to give one hour or most precious resources the respect that it deserves.

RAHUL PRASAD: Thank you, Dagan. You can find out more about Dagan and his work, as well as all of our other speakers and performers on our website TEDxUofW.com.

We're now going to take a ten-minute intermission. So take this opportunity to stretch your legs, get a glass of water, and engage with us on our Instagram at @TEDxUofW or on any of our other social media, Facebook and Twitter, with the same handle.

See you in ten minutes!