

Interviewer: Hello. Good morning for everyone out there today. Thank you for joining our webinar on The Waste Reduction Network. We're just going to give folks a little bit more time, a minute To have us log in and then we'll get started. My name is Bruce Lung and I'll be serving as your moderator today. Good. Well, I think we'll go ahead and get started.

Once again, welcome to our Waste Reduction Network, part of the summer series webinars. We've got an exciting lineup for you all today and we hope you'll get a lot out of it as well. The webinar will provide some of the ways to actionable insights from industry, partners and other folks that work on sustainability to help accelerate the conversation, energy efficiency and sustainable refactoring and living. Today's webinar is called The Turning Waste into Wealth Sustainable Food Management Strategies.

Before we dive in, there are a couple of housekeeping points I'd like to cover. Today's webinar will be recorded and will be archived on the Better Building Solution Center. We will follow up when today's recording slides are made available with all who are interested. Also, attendees are in listen-only mode. So your microphones are muted. If you experience any audio or visual issues during the webinar, please send a message to the Q&A box located at the bottom of the Zoom panel and our tech support team will address it. So next slide please.

Going to just touch base on all the companies that are in the waste reduction network. We have a lot of good partners in there. We are growing, so there's still room for companies that are interested if they have a waste reduction program or goal or if they want to develop a waste reduction programming goal, we can definitely accommodate them. We have a pretty good, you know, partition between both manufacturing industrial and commercial partner building partners. So come one, Come all. Next slide please.

My name is Bruce Long. I'm a senior tech advisor for Lyndell Reed and I'll be serving as the moderator today. Next slide please. I'm just going to quickly let you all know who's on the team for the waste reduction network. So in addition to myself, Sarah Stubbs from the billing technologies office is somebody who will also help support and lead the team. We have a lot of great support from Jasmine Schmidt at ICF. Julia Cox, the RE Tech Advisors. And also we have Technical Support Group from Civic Chatterly at the Oakers National Lab who is a waste expert. Next slide please.

Before we dive in to the actual presenters today, we wanted to give

you all some information from our colleagues at the energy – I'm sorry, environmental protection agency, EPA. They do a lot of great work on a lot of areas, including waste reduction. And in one case they do have a team that focuses on food waste and also does some work on anaerobic digestion related to food waste or waste streams from food production.

So one of the things that they've updated and put out there is this wasted food scale. It basically gives you an idea of how to prevent food from being wasted in the first place but also goes through a series of different steps and situations in which you can either try to reuse or donate or, you know, maybe make some food waste streams go towards some kind of energy situation.

The landfill is probably the least best option and it kind of shows you all the things you can do up until having to do that. So we definitely encourage you all to find – to go to the website here and look at the wasted food scale. There's a whole lot more information than just the scale. There's a new report that just came out. A lot of tips and techniques and stuff like that. So we definitely encourage you all to look at that. Next slide please.

In addition in addition to the wasted food scale and the work that they're doing there, the EPA has come up with a newer version of what they call the Waste Reduction Model. So this is a software tool that can help you calculate, you know, potential savings in waste energy and so forth dealing with, you know, waste reduction. A lot of companies are using it to quantify the greenhouse gas emissions, reductions associated with waste activities, comparing greenhouse gas emissions, different activities.

And a lot of modeling of different scenarios based on how you achieve waste reduction and stuff like that. So, you know, impromptu information that also generates some, you know, actionable result. We also have the Website for it here. So we definitely encourage folks who are interested to go ahead and use it. Next slide please. And there are some additional waste reduction resources that have been updated from our Colleagues at EPA.

Frequently asked questions, do better – the Energy Star Billings page, similar to our Better Buildings Program. And then managing or reducing waste. So that's the new report I mentioned with a guide pretty much for commercial buildings. But it may have some applicability outside of it as well. And then conversion factors for waste so you can understand, you know, if you have a certain

amount of some kind of waste stream, like a wood residue, what that would translate into, into the energy content that you can get from a waste energy scenario for example.

So thank you very much for listening to this. We definitely encourage folks to visit these Websites, access these resources and hopefully it will help you out in the waste reduction journey. So next slide please. Today's agenda, we're kind of in the welcome introduction part so I'm not going to spend too much time on that. We're going to go into two speaker presentations. We have some really great speakers on today. And then we'll have some time for Q&A and wrap-up session at the very, very end. Next slide please.

For this type of webinar we use Slido. So we definitely encourage you to go to slido.com and enter the DOE code, #DOE. And then, It'll put you into kind of like a virtual room where you'll be able to comment or ask questions and like different questions and stuff like that. So definitely we encourage you all to do that. So next slide please. So today's presenters, we've got two great presenters from two great partners. I'll just introduce both of them really quick and then we can launch into the presentations.

First off who we have is Lacey Moore from Lundberg Family Farms. Lacey is the Sustainability Manager for Lundberg Family Farms and has been with the company for about four years. She has a Bachelor of Science in Environmental Science, to apply to ecology specifically. And she manages Lundberg's zero waste policy, TRUE zero waste certification as well as energy efficiency projects and ENERGY STAR certification.

She also works on the climate life cycle analysis and helps find innovative, sustainable packaging solutions for the company. So thank you very much, Lacey. Next I'll just introduce Kaity Robbins with Whole Foods. Kaity unofficially started her career in a dumpster auditing waste through a small sustainability consulting company based in Connecticut.

Then she went on to bigger and better things and graduated from Tulane University where she worked – she worked as an account manager at River Road Waste Solutions where she worked with their clients and haulers nationwide, chief operational efficiency and maximized waste reduction. As the first zero waste manager for Boston University, Kaity led the development of the zero-waste plan and developed a transformative resource management style waste contract for that university.

In 2022 Kaity joined Whole Foods Market as the first senior program manager for diversion where she develops and implements a companywide waste reduction and diversion strategy and program. So definitely want to thank you all for being with us today and I'll hand it off to Lacey Moore.

Lacey Moore:

Good morning, everybody, and thanks for the introduction, Bruce. We can go to the next slide. So I do want to introduce everybody to Lundberg Family Farms. If you have not heard of us before. We are a vertically integrated waste company. We grow rice. We dry and store it, process and millet, package it and manufacture things like rice cakes and boxed rice products among other things. Lundberg is indeed a family company.

The family came to Richfield, California in 1937 in the wake of the dust bowl, bringing along their tractor and transitioning to rice farming. And from the get-go, the company has intended to be in partnership which nature every step of the way. Next slide. Environmental stewardship is a pillar of our company and a part of our strategy. It really encompasses our commitment to soil, ecosystem and watershed health while also promoting biodiversity and reducing environmental impacts on all fronts.

This does extend beyond the fields and carries into our manufacturing operations. We want to have substantiated environmental footprints to understand our quantitative impact, including full company of scope 1, 2 and 3 emissions but also understanding our impact from a lifecycle analysis perspective. And to circle back to Bruce's introduction, we do use tools like the Warren Model to understand our impact of diverting waste. Next slide.

And you could say that we're green from the ground up. I could talk forever about energy management, climate analysis, et cetera but today we'll be talking about waste. And as a food manufacturing and farming company, I will say that I can't tell our story about food waste without telling our entire zero waste journey. So bear with me. Next slide.

And a quick poll for you guys. I am interested to know, How much waste do you think the average American produces per year? Okay. I've got some variability here. Looks like we've got a few answers still trickling in. We can go ahead and close it. So it looks like the majority of folks think that it is three times. second coming one and a half times, which is correct. So we can lead into the next slide and I'll give you some context on why I asked you this

question.

So where we are at now. Last year, we had a facility diversion rate of 95.3 percent and a company waste diversion of 99.6 percent. Now this is where food comes into play. You'll notice that we have two different diversion metrics. And facility waste includes all of our industrial waste from our manufacturing facility, employee break rooms, et cetera. But when we want to include some – when want to include rice byproducts – like rice hulls, bran, broken rice and feed – this goes up to 99.6 percent.

So we really like to give perspective. These materials are diverted and sold for animal feed, animal bedding and ingredients and things like that. And since the average American does produce about 1.5 to 2 tons of waste per year, our total landfill volume was 41.5 tons last year, which is equivalent to about 30 Americans waste in a year. But how exactly did we get here? Next slide please.

So we began tracking waste metrics in the 2000s regarding what we are sending to the landfill, The byproducts we were selling, et cetera. Well, it wasn't until 2008 that we got our first mixed recycling bins. We are about 15 miles from the nearest city and in a town with a population of about 200 people. So that is when our waste journey truly kicked off, by separating our materials. Our first company waste audits took place in 2011 to identify our diversion opportunities.

We completed surveys to assess employee knowledge and understand any gaps that we could address in training. And with the construction of our new administration building during this time, our team members became responsible for sorting their own waste in our office. In 2013 we did reach a diversion rate of 88 percent after finding vendors who were willing to take things like flexible plastics, spice pouches and glass jars.

And this is really when we started to think about the true zero waste certification which requires a 90-percent diversion minimum. In 2014 we reached that 90 percent at a previously set five-year goal. And in 2015 we reached a 92-percent diversion. We also enacted an official zero waste policy for the company and began and you will add us to continue finding those opportunities to divert recyclables compostables and other organic materials.

And in 2015 we reached a 94.1-percent facility and 99.6-percent company diversion rate. Next slide please. We also joined a

garment recycling program for things like nitro, gloves and started purchasing larger cases of gloves and other materials to reduce waste. All of those small activities do add up. In 2016 we started using scrap pieces for store pickups, gift baskets, changing pallet wrap materials, switching to electronic kiosks and eBoards to reduce our paper use, reducing our hazardous waste and the number of light fixtures by changing to LED.

We joined our uniform recycling program and we started to take food waste to an anaerobic digestion facility. And through all these efforts we did achieve the true zero waste certification and a 95-percent diversion rate in 2016 and we have maintained it since. Our next focus really was honing in on food scrap coming off of our manufacturing lines and also scrap packaging.

In 2017 we started bulk recycling and we also started a used equipment inventory, which helped all departments finding parts and also identifying appropriate reuse or recycling options here. However, in 2017 China's National Sword policy came into play and that banned the United States from exporting waste as we had for years, and we simply don't have the same infrastructure for waste management in the US.

And so, this greatly reduced the rebates that were helping to support our sustainability program. And we worked closely with waste haulers and purchased additional bailers to separate materials and reduce the chance of contamination. In 2018 we established our resource recovery center to help solidify all of our weight handling and management and in 2020 partnered with TerraCycle for a consumer-facing flexible packaging program.

And scrap food materials and packaging aren't our only concern. It really is also the end of life of our packaging and products as well. Next slide please. Wanted to give visibility to the number of waste streams that we have separated in our facility. We maintain our diversion rates by separating these waste streams as much as possible. This is reducing the possibility of contamination and increasing our ability to get rebates from vendors or customers who want specific materials. Next slide.

So another poll question here. "True or false? Does changing the manufacturing process or equipment have the ability to produce food waste?" Okay. Probably a couple more seconds here. Looks like the looks was sitting with true, which is the correct answer. And I will give some examples of our experience with that. Next slide please. So waste diversion does present a lot of opportunities

and challenges. So let's start with talking about opportunities.

Some things to look carefully at is reusing or reducing scrap material. And one example is that we really honed in on the pressure and moisture of our rice before it is popped into our rice cakes to minimize the amount of scrap coming from our rice cake manufacturing. And we also use broken rice after it is milled to manufacture our mini rice cakes. Continuous audits are also helpful. We check all bins in our facility daily, and we do a complete audit annually.

And I actually came to this webinar after supporting our teams and setting up collection bins for our annual landfill audit, taking place this week. Collection starts today and we will sort through all materials on Friday. This really helps us to understand any root cause of contamination and gives us the ideas of things to divert. And one of the opportunities we have every year is to educate our employees and continue to find the most effective solutions are far food scraps are not readily composted – which are not readily composted in our area.

Another thing you can do is change materials. We have changed ingredients or even ingredient application processes in the past to reduce food scraps. One example is, when we were still manufacturing our strawberry cheesecake rice cakes, we ended up choosing to mix the chocolate and strawberries after learning the topical application of the strawberries was producing a lot of scrap. And you can also work to localize your vendors and customers.

It is really difficult to divert food waste, especially if you're somewhere like us and we don't actually have an industrial composting facility near us. We do work with a locally anaerobic digestion plant that does bring natural gas back into our local systems. But this journey does not come without challenges. The waste industry is relatively volatile. Certain contamination levels are accepted at certain vendors, but usually that's about 1 percent of contamination in our supply chain. And this includes food waste.

Thinking about things like grit, animal products and other organic materials that you'd like to divert, it's important to recognize that the waste industry is subject to supply and demand when it comes to vendors interested in certain waste streams. The National Sword policy in COVID showed these challenges to vendors in our network, impacting their market and operations and closing some businesses. So sometimes finding vendors, especially for funky

materials, is difficult. Funny enough, rice is something that we have a hard time ridding if we have to. Because something like anaerobic digestion uses so much water to break down nice.

And of course, obtaining rebates for your efforts is helpful. But finding the right vendor is not always easy, especially if you're trying to localize your supply chain. And with all these things considered, ensuring team members are up to date on any changes is complex come up with our company being around 450 people and having collection processes change relatively often. But it is a company effort. Next slide.

Okay. Another poll question. "True or false? Does packaging play a role in reducing food waste?" Seeing all the same answers so far. Okay. It looks like we can probably go to the next slide there. All right. Well, as you folks know, packaging does have a role in food waste too. So we are always looking for more sustainable options. But with a focus on the quality and integrity of our product we really want to make sure that our products don't become food waste if not in hardy enough material.

It is unfortunately no secret that flexible plastics have been the best to uphold our product but obviously not the front of reducing emissions and using sustainable materials. And of course, as a food manufacturing facility we want to think about the end of life of our products. With the food part hopefully being in your belly, we also want to find the best end of life for that packaging. Next slide.

And as I said earlier, we did partner with TerraCycle to improve the end of life of our hard-to-recycle materials while we work towards a more sustainable packaging solution. Next slide. So if you ask us, our mission goes back to Albert Lundberg's commitment to leave the land better than you found it. And that's all I have. Thank you.

Interviewer:

Thank you very much, Lacey. And now we've got Kaity Robbins from Whole Foods. So go ahead, Kaity, when you're ready.

Kaity Robbins:

Hello. Thank you. Thanks, Lacey, for that great presentation. So exciting to see all of you all at Lundberg. Really incredible. I am such a big fan of the TRUE program. And to see it in action and doing so well is just really inspiring. So thank you. Hi, everyone. I'm Kaity Robbins. I'm a senior program manager of diversion at Whole Foods Market based out here in Austin, Texas at our headquarters. I'm on our sustainability team. I've been with the company for about two and a half years. Next slide please.

And I'll be talking to you all a little bit about today our food waste reduction diversion strategy at Whole Foods Market. Next slide please. Some quick context before we get into the good stuff. I wanted to ground us in the sustainability strategy at Whole Foods. So we have five key focus areas. Responsible sourcing, carbon climate water, waste and packaging, human capital, our people impact and transparency reporting and engagement.

This gives us a really holistic strategy to look at all components of sustainability within our business and within our supply chain and for our customers as well. Responsible sourcing is nothing new for Whole Foods Market. Right? This is our quality standards, which is the foundation of what makes us unique as our company. Think things like our organic grocery certification, our organic products, ingredient bans, sourcing standards, animal welfare.

All that stuff has been happening since the beginning...we are now recognizing as part of a larger sustainability strategy under responsible sourcing. Climate carbon and water, also nothing new that we've been taking action on but we have a – alongside Amazon – a net carbon zero goal by 2040. So all of the good stuff that happens in that area is under this pillar of our work. Waste and packaging, that's me.

I lead the development and implementation of waste reduction and diversion strategy as well as our packaging sustainability and improvement strategy. Of course, alongside many other folks within the business. Human capital or people impact, this is really looking at our suppliers, the relationship we have with them, of how we're supporting them being successful at their business and them having a positive impact on the land.

And then transparency reporting and engagement is really a way of working. Right? We seek to be – redefine the standards of how transparent retailers are and engage everyone from our suppliers to our team members at Whole Foods to our customers in the work that's happening with sustainability at Whole Foods. Next slide please. So of course – yes. We are talking about just the waste of packaging vertical today. Next slide.

And one of the main things we have committed to is 50-percent reduction in food waste by 2030. We committed to this alongside Amazon a few years ago as part of the US Food Loss and Waste Champions. And we were recently independently signed on to ReFED's US food waste pact, which I'll talk about a little later.

But we are – we're doing it.

[Laughs] And now that we're doing it, what are we doing to get there? That's what I'm going to talk a little bit about today. Next slide please. So the last two years that I've been here has been a pretty foundational time. We developed an accounting methodology and a baseline for our food waste. We developed – we defined the metric we're going to be using to measure our food waste, which is food waste intensity.

And then, we created a very cohesive strategy that's based on this food waste hierarchy you see here on the screen. Right? This is in line with the EPA's waste hierarchy. But it really is a way of defining the prioritization of “How do we want to handle food product and food waste in the most responsible way possible?” So after we have this baseline created, our metric defined and our strategy generally outlined, we wanted to educate all of our team members.

So we've got 550, almost, stores across the company, we've got 10,000 in store employees. They need to know. They need to get behind the strategy since they are the ones on the frontline in our stories. So we created a couple of different resources, a waste diversion handbook, some online trainings and engagement, and we were able to reach almost 75,000 team members last year with these trainings.

And then, we also created our green mission program, of which a significant component is waste education and training. So we've got green emission ambassadors at the vast majority of our stores who help us train folks in this strategy and how that comes to life in our stories. Next slide please. So drilling down into the levels of the hierarchy. I'm going to highlight a couple of key initiatives or focuses that we're doing in each of these levels of the hierarchy. Right? Because it takes a holistic strategy to really move the needle on this massive goal.

So when we think about decreasing food waste, we think about shrink. And for those of you that are not in the grocery industry, shrink is our inventory or our products that are lost or cannot be sold. And there are a variety of reasons why that might happen. Right? There's theft, there's spoilage, there's over ordering. If a product is damaged during transit. For any other reason that it cannot be sold to our customers on our store floor that is considered shrink.

So to reduce food waste we must reduce shrink. And how do we do this? There's a couple of key things to look at when you're looking at this area of decrease. We want to monitor over-purchasing through better order management tools. We are creating a more customer centric – customer centric assortment [laughs] which leads to not creating unnecessary waste.

We are working with conversion, and that means – you know, think one avocado is simply too right to sell but will make a great guacamole. We make that guacamole in-house and we sell it on our shelves through our own brand. So in-store conversion of whole products to value-added products. That happens in our prepared food section as well for our hot bar and salad bar.

And then, we're looking at – we're looking outside of our four walls and we're bringing in partners to help us maximize this even further. Two of those I want to highlight today. One of them is Too Good To Go and one of them is our Enjoy Today program. Next slide please. So our Too Good To Go program is something I'm really excited about. If you're not familiar with it give it a Google.

But it's a really simple solution for reducing food waste and driving new customers. Basically we're able to post our near-expiry but totally edible and wholesome [laughs] food under this platform that becomes – makes it available to the public at a very reduced rate. And it's been doing really well so far. We recently just expanded to 300 more stores. And our team members love it, our customers love it and it's effectively reducing food waste. So it's been super exciting. Next slide please.

Our other program in this same vein is called enjoy today. And this is an in-house-run program. Super simple, again. Basically, we are monitoring the products that are about to expire, need to be consumed within a few days, and we're decreasing – or we're discounting that by 50 percent. And we're putting these, you know, just bright yellow stickers on there. And our customers are loving it and it's helping us get that product off of the shelves. Next slide please.

So drilling down into the next area of our strategy. You know, often with all of these awesome efforts to decrease food waste, we still end up with some. And so, that's when we're looking to donate. Right? That's the next priority. So we've got – one of our major programs at Whole Foods is our food donation program. Next slide please.

And through this program, which is long standing and really beloved by our team members, we've been able to donate over 33 million pounds of food in 2023. And this is consistent year over year. So remember, between 28 and 33, 35 million pounds every year. And not all goes to local community organizations. We actually serve over 1,000 unique food rescue agencies all across the US, Canada and with a small footprint in the UK.

And this has allowed us to live our core value of caring about communities and the environment. We're very driven by these core values and this program is a really great way that we connect and support with our community. Next slide please. And that's not all we do around food donation. We also have something called our Nourishing Our Neighborhoods program. So this is where Whole Foods funds the purchase of refrigerated vans for food recovery organizations across the country.

We've donated 50 vans across the US and Canada so far, which allows for these agencies to rescue more food, keep it fresher and get it to the people who need it. So a really great program. We've got no plan of slowing down on those donation program numbers, so we're excited about that. Next slide please. So as much as we decrease and as much as we donate, unfortunately we still have waste. Right? Where your raspberries go moldy in the blink of an eye or a customer drops a huge bag of rice and it breaks open and disposal is your only option.

But of course we don't want that going into landfill. And so, we utilize composting and anaerobic digestion and animal feed. And as of 2023, we have about 452 stores with some type of food waste diversion program. Which is about 85 percent of our total footprint. Through those programs we were able to divert 87,000 tons of food waste from the landfill. And this year we're trying to expand that. We're trying to close that gap, get those services at all of our stores and continue to increase the amount that we're able to divert from landfill. Next slide please.

And to do that we needed some help. Right? It's a crazy landscape out there for composting, especially in the US. Services aren't always available. We just knew that we needed backup on this. So we recently brought in a new waste program called Rubicon. And among many improvements, they're going to give us the data and insights we need to strategically assess the gaps in our program, right-size are existing services and move towards improvement. And this right-sizing is something that we see as really key. Right?

So we want to only be having – have the right services for the type of waste that we are producing. And that in turn will help it get to its most productive next stage. So we're really excited to start working with Rubicon on that a little bit later this year and into next. Next slide please. So our Code Green program is another key strategic initiative that falls into this diversion category. But in truth it actually expands throughout the whole strategy.

In simplest terms this program requires our store team members to take a moment and inspect and reflect on the waste before it's tossed into the compactor. Right? We know that a trash can or compactor can be a black hole. You throw it away and you never think about it again. You don't think about where it goes.

And so, this program encourages our team members to take a look at what they're throwing away and look for those opportunities to correct ordering mistakes, to donate the eligible edible food that might be in there that mistakenly wasn't donated and to correct mistakes with sortation, to make sure that our composting streams, are recycling streams, are as clean as possible, which supports that healthy circular loop of recycling and composting.

The preliminary results from this program were really positive, so we rose it out to the rest of our stores last year. The lift is quite high for stores. Right? This is kind of a big operational change. And so, we've got a long runway for adoption here but we're really looking forward to measuring the full results of this later this year and into next.

And so far it's being – it's showing great initial results, so excited to report back later on how that's going. Next slide please. So all of those things are in service to this massive goal of 50-percent reduction in food waste by 20-30. But even with all of those initiatives, we know that it's going to be a challenge to reach this goal. We have about three years of entitlement mapped out right now with these programs.

But we know we have to think longer-term than that. And so, we called in the backup. We phoned a friend and we joined the US Food Waste Pact. Next slide please. And the pact is run through ReFED and our Wildlife Fund. And it's a collaboration amongst industry peers to target, measure and act to reduce food waste.

This is a supportive and supplemental program from the US Food Waste and Loss of Champions program, really aimed at taking

action through collaboration with peers and with ReFED and with all the resources that they provide. So we joined this in December of last year when it was not announced at COP.

We're super excited to begin – we have begun working with many of the other retailers in this and participating in pilots and programs and research studies. And this is – we see this as a key way that we can support the acceleration of these initiatives industry-wide outside of our four walls. I think that's all I have. Next slide. Just making sure – yeah. So that's all I've got. Thank you so much, the better buildings, for having us. And I'll pass it back to you, Chris.

Interviewer: Well, thank you very much, Kaity. I was enjoying learning new things and we had learned that “give it a Google” is something that I'll take with me from this webinar. So thanks again to both of you all. Those are really insightful presentations. Things that I didn't realize was going on. We do have a couple of questions in the Slido hopper. And so, I'll just go to that really quick and see, you know, what that looks like right now. One question I think that's possibly for both of you all is “What advice do you have for companies that are starting their waste diversion journey?” There we go.

Lacey Moore: I guess I can start off. So I would say doing some research in your local area and even beyond that to understand the waste vendors that you have access to. So that in tandem with doing something like a large-scale audit or even small scale to really understand all of the types of materials that you have.

And ultimately, without having those vendors or customers for those materials, you won't have the opportunity to divert. And that's not always the easiest thing. So I would say to start with that and then really dive in to making it part of your company policy to make sure that, you know, every person and team member that's a part of your company or your facility is educated and also understands that it is a full company responsibility to commit to waste diversion.

Interviewer: Mm-hmm. So basically education is the key. So thank you. So Katie?

Kaity Robbins: Yeah. I couldn't agree more with Lacey's points. I think the waste characterizations study is really important, or waste audit. And the only other thing I'll add is that it's so dependent upon behavior change. Right? So I always like to conduct some sort of listening

tour...we call them at Whole Foods. Where you're interviewing about their interaction with waste today, any problems or opportunities they see and then building your strategy and programs around that. That will ensure buy-in from folks across the company and synergy with their priorities. And that's been the most effective way I think of building a holistic waste strategy.

Interviewer: Perfect. We had one specifically for Lacey. “How easy or difficult was it to achieve the results you shared? Did a lot of the employees participate?”

Lacey Moore: So there's a couple of factors there. I will say that when it comes to food waste specifically – and especially our byproducts – that was on the easier side because those materials are truly wanted in the supply chain as animal food ingredients or animal bedding. So that was successful early-on. I think as you heard we had some difficulty in finding vendors but also changing vendors when necessary.

So I can say that the boots-on-the-ground operations aspect of it is a little bit easier when it comes to things like weekly waste audits, daily shift checks, annual audits. But I will say that not everyone is thrilled to dig through a week's worth of trash. So I think that's the harder part, is really building the culture that we are doing this for a reason and it will continue to help us uphold our zero-waste policy.

Interviewer: Okay. Great. And Kaity, if you want to add feel free to.

Kaity Robbins: No, I think very well said.

Interviewer: Okay. The next question we have here is, “What are some innovative types of safe packaging that your companies use or will start using?” So like by a degradable plastics for example.

Lacey Moore: So I can start there. Lundberg has trialed a number of bioplastics. And at this point in time we are in an unfortunate pause when it comes to really going towards packaging changes. And this is because of the EPR, or Extended Producer Responsibility legislation, that is coming to front. And so, we really want to make sure that all the changes that we make looking forward do align with the regulations that will be coming soon by different states and provinces in Canada.

So bioplastics proved positive for us. Another kind of story there is, we were going to switch to a more readily recyclable rice pouch

and chose to do a life cycle analysis on our current packaging compared to that ready-to-recycle pouch. And we actually found that it had a larger footprint. So we are definitely committed to lifecycle analyses as a standard process because we really want to understand, “Are we making this change for a better impact or” – you know, we don't want to change something over a word.

Kaity Robbins:

And the other thing I can add to that is, I do think the life cycle analysis is really important because the tradeoffs aren't always clear between one packaging option and another. At the surface level it might appear to be a more sustainable option, but if you look at things like the availability of residential composting programs that can accept bioplastics which is only about 5 percent of US households have access to that – like, that should be taken into consideration when you're considering what type of package to use.

So we are looking at all of that as well with a life cycle type of lens and assessing the tradeoffs. We tread carefully with compostables and we looked more towards switching products into curb side recyclable. But we certainly are also looking at reduction. Right? So a reduction of plastics which we know to be just such a pervasive pollutant issue...is going to be a big focus for us in the coming years.

Interviewer:

Perfect. There's one question here about how much revenue it increases for Whole Foods. I don't know if you're able to speak to that, Kaity.

Kaity Robbins:

I don't know the exact numbers. But just to be transparent, it's not a revenue-generating program for us. While it prevents us from taking a total loss from the loss of that product, it's really – it's a waste reduction initiative that is the drive for us to do this. And also to better serve our customers. Right? Giving them the same wholesome, you know, good quality projects but at a lower price point as opposed to disposing of it is something that our customers are loving. So really driven by the waste reduction.

Interviewer:

Okay. The next one here also seems for whole food. “Have you all considered energy generation on site or off site with food waste?” So I'm guessing that would be like an anaerobic digestion type of technology.

Kaity Robbins:

Yeah. Absolutely. We have quite a few sites using the Grind2Energy program, which is an on-site anaerobic digestion facility. That kind of slurry of material is then taken off site or to

be run through a digestion plant where energy is generated. And we are – we consider that option alongside other composting and animal feed options whenever we're looking at food waste diversion options.

Interviewer: Okay. And then, there's another question I guess also for Kaity about restaurants and how eager they were they were to participate in your Too Good To Go initiative.

Kaity Robbins: Definitely. So Too Good To Go I think – whoever asked this question is probably familiar with it. Typically it's a partnership with restaurants where restaurants at the end of the night can give away or sell at a deep discount their extra food. For us we're not partnering with any restaurants. It's the food – it's the products on our shelves that we are putting into those surprise bags and selling at a discount. So we run it for our bakery department and our prepared foods department. So it's all done completely within the Whole Foods universe. It's our products then and you're picking it directly up from our stores.

Interviewer: Thank you. Another one here asked, “Are there any initiatives to tackle end user packaging waste such as bringing back programs for plastic materials for recycling? I think there are some organizations like Sherwin-Williams will take back unused paint, for example. So something in that vein.” I don't know if you all have anything on that.

Kaity Robbins: We're really focused right now in these last two years on our own footprint. We do have some take-back programs across the company. And I think we're looking at how to strategically move those forward in a way that supports what our customers want and expect from grocery retailers. And we're also looking at just our own footprint and our own product packaging.

Interviewer: I don't know, Lacey, if you want to chime in on that one or not or...

Lacey Moore: I would say from the food manufacturing point I did mention something like a consumer program like TerraCycle. But really the most readily available program is called How To Recycle. You may have seen those labels on various products like bread bags and things like that where retailers will have a bin that you can bring back those pieces of packaging but maybe the plastic bags from their stores and produce bags and whatnot. That is what I have the most visibility to as far as the bringing back program for food packaging.

Interviewer: Perfect. Thank you. Another one here asked you're asking about how this Whole Foods has taken account in different states' abilities to recycle certain plastics. So that's navigating the patchwork of state and local I guess regulations.

Kaity Robbins: It's a great question and it's very difficult. But we – to Lacey's point about how to recycle, this is a system that we rely heavily on to help us navigate the state and local level differences between what's recyclable and not recyclable. And so, we are in the process of taking information about all of the packaging we use for our exclusive brands products today and measuring it against the how to recycle standard to understand the recyclability of our current portfolio.

And I think from there that will inform our strategy for, you know, better on-pack labeling of our product packaging and hopefully, you know, the actual product – the product's packaging that we use. Trying to more align with what is commonly recyclable in the majority. So we do – it's something you can't really tackle on a one-to-one situation, so organizations like How To Recycle – also the Recycling Partnership – have great resources that kind of help you understand the larger landscape

Interviewer: Great. And I don't know, Lacey, if you want to speak to – I think you all are basing California. Are there any resources or regulations that help facilitate, you know, recycling everything?

Lacey Moore: We are in an interesting place because we're in a very rural area in Northern California. And so, when it comes to our state's availability it really is kind of far from us when it comes to industrial waste. And that's really unfortunate when it comes to our post-industrial but not post-consumer packaging.

As far as the different states' ability to recycle or even compost certain packaging, it is rather difficult to follow the resources available in different states but even different parts of states. And so, just really echoing what Kaity had to say there and understanding not only from how to recycle guidance but also the FTC green guides, you know, what materials are generally recyclable in a majority of places. So it's pretty difficult.

Interviewer: One question here asked, "Have you seen initiatives engage suppliers to reduce upstream waste?" And I've got a follow-up question to that. I don't know if everyone was at the summit this past spring, but one of the questions or ideas that came out of the waste session there was that there were some haulers that were not

recycling even though they were picking things up that should have gone to a recycling type of plant. And, you know, I think that is part of the supply chain. And I don't know if you all have seen any evidence of that happening or what you've done to perhaps prevent that from happening. But first of all, let's go ahead and engage – do the question, engage the suppliers to reduce upstream waste.

Kaity Robbins:

So I can start on that one. Obviously we have a very large number of suppliers here at Whole Foods. We also have very close relationships with a lot of them. So we work hand in hand with them on all types of things. Sustainability, waste, carbon included. So I think we recently published our packaging guidelines, and those are available to suppliers which kind of show our preferences and priorities around packaging and how that contributes to waste.

I think we also seek to amplify the good work that suppliers are already doing around waste reduction. And I think upcycling is an important part as well. Right? Many of the products on our shelves are either upcycle-certified or use upcycled ingredients. And so, we see that as a key strategy that our suppliers can use to reduce the waste on their portion of the supply chain.

Interviewer:

Okay.

Lacey Moore:

And I can add to that a little bit. We really are diving headfirst into understanding our supply and emissions at this time. And so, we are trying to engage on all upstream emissions and whatnot. But when it comes to upstream waste, kind of the best thing I could speak to at this time is we have focused on kind of buying in bulk the best that we can, whether we're talking about packaging, ingredients, anything like that, and ultimately reducing the materials that we are receiving.

That has worked in a couple of ways to kind of encourage suppliers to package larger cases of ingredients and things like that. So as a vertically integrated company, you know, we are receiving some ingredients for our products and of course packaging. But most of the waste happens right here. We are part of our own supply chain.

Interviewer:

Okay. Perfect. And I don't know if you all have any sense yet for the question I posed about, you know, the waste haulers and how you work with them, how they perform, that kind of thing.

Lacey Moore: I can start there. There's a couple of different things. So we have some waste vendors or customers – depending on the material – that are willing to provide us lifecycle analysis when it comes to their operations directly. So really showing the end of life of materials that we are providing to them. And then in addition to that, we definitely have very strict vendors when it comes to contamination.

And so, like I said, most of our vendors are only okay with that 1-percent contamination. For example, we had a bale of clear plastic – which is mostly our palette wrap from here – and there was a small amount of rust from our baler that was on that bale, just on the side. And that was rejected and sent to landfill. And so, that's really the best visibility that we have, is our vendors and customers providing that data. But also being honest in the sense of rejecting materials if it was contaminated in any way.

Interviewer: Perfect. Thanks.

Kaity Robbins: And just to add to that, this is something I'm passionate about. And yes, we do come into contact with situations where what we expected as being recycled is not actually. And sometimes that's due to contamination and sometimes that's due to a host of other reasons outside of our control. I think I'm very – I'm a big proponent of building in this kind of consideration into contract with haulers to help with accountability and transparency and reporting. Right?

Structure your contract so that this is a key part of the agreement between you and the hauler. I'm a big fan of the resource management style contracting. If you haven't heard of that before it's just kind of more of a beneficial way of approaching a hauler-client relationship. And I think this is one of the major reasons we brought Rubicon on as well. Right? Our agreement with them is that they will help us oversee and hold all of our individual haulers accountable. Right? We've got so many across all of our stores. It's too much for us to oversee so we brought the partner in to help be kind of the enforcer of those standards.

Interviewer: Okay. Great. I like that, the enforcer. I think that's going to do it for the Q&A session today. I do want to close with a few final remarks. Number one, I'd love to, you know, just thank both of our presenters for some great presentations and some really insightful answers, You know, during the Q&A session. I do want to remind folks that this is one webinar out of an entire series of summer webinars.

So we hope that you'll join us in the future for the webinars that are coming up, including – water reuse technologies will be the next one that's being done by Andrew Whitlock, our partner and one of our colleagues there. Also like to thank the participants who came and stayed and asked questions. Also, if you didn't get your question asked, you know, please go ahead and – we have some – I think the last slide should have our contact information.

So if you want to get back in touch with us and ask some questions, you know, we're certainly able to address them right there. And we also want to encourage folks to follow the Better Buildings Initiative on LinkedIn and X scrolling – that's Twitter – and see what new things are coming out. We usually have a lot of LinkedIn posts that talk about partner achievements, updates to programs and that kind of thing.

And then, you'll probably get an E-mail at the end of today's, you know, recording with slides and a transcript that will be available, you know, so if you're interested in that please follow that. And I think with that we're at 11:59 so I'll go ahead and close it today. Here we go, there's the slide with all our questions – our contact information.

So like I said, these will be made available. So please be patient. It will take another week or two but in the interim go ahead and E-mail us If you have any further questions. So thanks again. Thanks Lacey and Kaity. We definitely look forward to look forward to working with you all and helping you reduce waste in the future and we'll hopefully see you again soon.

Kaity Robbins:

Thank you.

[End of Audio]