Hello, good morning, good afternoon, or good evening, wherever you are on this beautiful planet of ours. Welcome to **Sustainability In Your Ear**. This is the podcast conversation about accelerating the transition to a sustainable, carbon-neutral society, and I'm your host, Mitch Ratcliffe. Thanks for joining the conversation today.

Every year, Americans buy roughly 5 billion pounds of fresh produce that's packaged in flexible plastic — that's salads, carrots, potatoes, lots of produce. That packaging extends shelf life, reducing food waste, but most of it is made from virgin polyethylene refined from fossil fuels, and almost none of it gets recycled.

My guest today is Kevin Kelly, CEO of **Emerald Packaging**, the largest supplier of retail flexible packaging for the U.S. produce industry. And on December 11 of 2025, **Emerald announced a significant milestone**: that over the previous year, the company had replaced more than 1 million pounds of virgin polyethylene with post-consumer recycled material, or PCR, as you'll probably hear it in this discussion.

That shift — granted that it's only a million fewer pounds of plastic packaging in a vast sea of it — is a suggestion of what's possible in food packaging. However, getting recycled plastic approved for direct food contact isn't simple. Produce packaging is especially demanding, because shelf life and food safety are not negotiable. The FDA requires rigorous testing to ensure that no contaminants from that PCR migrate into food, and for years, the industry defaulted to virgin plastic because recycled content couldn't meet those standards reliably at scale.

Emerald is working to change that equation. In collaboration with Walmart, Idaho Package, and Wada Farms, amongst others, they've introduced the first 30% post-consumer recycled

materials potato bag approved for food contact, and Emerald's initiative supports **Walmart's Project Gigaton**, which aims to eliminate 1 billion metric tons of greenhouse gas emissions from the retailer's supply chain by 2030. Emerald has also partnered with **D'Arrigo**, the company behind Andy Boy produce, to introduce another 30% PCR bag for romaine lettuce hearts — and that's a shift that has removed over 600,000 pounds of virgin plastic from the supply chain between June 2023 and 2025.

Emerald is a third-generation, family-owned company based in Union City, California. Kevin brings the perspective of an organization that has operated through six decades of rapid, often revolutionary changes in how Americans buy and consume food. He's led the company through its evolution from a regional bag manufacturer to becoming an industry leader, pushing the boundaries of sustainable, flexible packaging.

So we're going to talk with Kevin about what it took to get recycled content into food contact packaging at scale, whether grocery customers are willing to pay more for sustainable options, how California's recent **SB 54 packaging law** is reshaping the industry, and whether flexible packaging can ever become truly circular when most curbside programs still don't accept it. You can learn more about Emerald Packaging at empack.com — that's all one word, no space, no dash. **Empack.com**.

Can recycled content packaging go from future milestone to mainstream reality? Let's find out, right after this. Welcome to the show, Kevin. How you doing today?

Kevin Kelly (3:33)

I'm doing great. How are you?

Mitch Ratcliffe (3:35)

I'm well, I'm well. Thanks for asking, and thanks for joining us. We've been working to get together for a few months now, and I'm glad that we actually now have the opportunity to

complete the conversation. I've shared a summary of Emerald Packaging's recent activity in my introduction, but could you share the backstory? When did your grandfather start the company?

Kevin Kelly (3:52)

It was actually my father. He started it in 1963 with three partners. They were based in Berkeley, California, and they mainly made — not produce packaging, which is what we specialize in now — they were making bread bags, because they were in the bread district. They were unionized by the bread workers' union. It was a very different company when they started out. It also had one printing press and two bag machines.

Today, we have 32 bag-making machines, seven printing presses, and I don't know how many other machines, and about 250 employees. It became a family business in '93, and then gradually the other siblings retired, and I'm the last one here. So we've got a wonderful staff behind us — very creative, very technical, and best of all, they're very detailed, which I'm not, which is why we've been having problems getting together for a couple of months.

Mitch Ratcliffe (4:52)

Tell me, how has the company changed since you've been involved with it? Obviously you just described a massive transition. But why the sustainability focus? When did that take hold?

Kevin Kelly (5:05)

Well, I started worrying about sustainability and packaging back in 2000, believe it or not, when the California Integrated Waste Management Board did a study of what was in landfills, and it turned out that plastic was a lot of what was in landfills, especially the ground covering that the agricultural industry uses in their growing operations. And so we started, with a bunch of California companies back then, having a conversation with the **American Chemistry Council**, which I can't stand — I'm just going to be upfront about it — about creating a recycling system

in California, because you could tell in the early 2000s this moment was coming. I mean, maybe it was a distant moment, but it was coming.

And the ACC told us absolutely not. The resin companies wanted nothing to do with fees. So really, back then, a bunch of small plastics companies in California couldn't do anything if the ACC wouldn't let us do anything. They had that much influence amongst both parties, the Democrats and the Republicans.

And so from there, I was sort of an orphan for a long time, you know — trying this, trying that. Worked with potato-based films, worked with PLA, polylactic acid. Tried different approaches. And then finally, a few years ago, post-consumer recycled resin became, I think, more affordable. It's still about three times, four times the cost of virgin resin, but blended with virgin resin, I thought it was an affordable option now.

Trying to get people to buy anything that they can't pass on — what a lot of people don't know is that CPGs have year-long contracts with retailers, and there's no causes for price increases, including acts of war, acts of God, supply disruption. So a lot of these companies are getting killed right now, but that's another story for another day. They have no way to really pass on increases. And Walmart's always said, we want sustainable packaging — we want it for free. They don't say free; they say we want it for the same price as what we're paying right now, which I take to mean free. They've gotten a little bit better in that stance, by the way, but there was really no way to pass things on.

So finally, in 2023, I just said, damn it. I've been working on this issue in one form or another for most of my career in packaging. I'm just going to do it. And so we convinced a customer to take their entire line and put 30% PCR in it, and we ate the cost of it. That was about 400,000 pounds of PCR right there. And from there, we attracted the interest of other companies. Some companies have taken surcharges, but PCR has really become our thrust at this point.

We're still working with a lot of compostable options — in other words, experimenting — because at 5x, 6x, 7x, 10x, it's still a very difficult proposition for most companies to take on. Companies with big margins, or specialty companies that don't have year-long contracts, they have a little bit more leeway in this area, I think. But compostables remain — I'm not going to call it a pipe dream, because I'm feeling like the extended producer responsibility programs are making it more feasible — but they're just not there yet.

Mitch Ratcliffe (8:39)

You've removed more than a million pounds of virgin plastic from your supply chain so far with recycled material, and that's just within the last couple of years. How did you have to change the company to embrace the PCR process and address customer concerns about food safety?

Kevin Kelly (8:57)

Well, those are two great questions. I'll break it down on a couple of different levels. Internally, when you're the CEO of a family-run business and you say, hey, let's go do this, people tend to start going and doing it. And there was a great deal of enthusiasm amongst the troops anyway about taking on a real project and commercializing it. So within the company, there wasn't much opposition.

Now, Kevin walking into a room and saying, hey, there's this really great technology — there's a company, **Circulus**, that's got an operation out in the Central Valley of California, about two hours away — let's start working with them. Well, then my poor Director of Operations, Michael Rincon, has to make it happen. And PCR is an animal all its own. In terms of production runs, there's a lot of variation within loads, for instance — not just between loads, but within. It causes a lot of carbon buildup on the extrusion lines, and so you have to shut down and clean them every eight hours. There's much greater waste because of the variation within the loads, and so on and so forth. So we had a lot of learning on the production side in order to make this happen. We're still learning.

But the other piece there has been the inconsistency amongst suppliers. Everybody talks about recycling and packaging, and yet you go to recycling conferences, and all you hear and all you really read about are the financial problems of recycling companies. The end markets really still aren't there for them. In the case of PET, they're competing with overseas supply that's much cheaper. And so getting a consistent source as one company after the other goes out of business has been tough. So that's been a challenge.

Our customers — they took us at our word that it was safe. They wanted to see what the process for ensuring that it was food-grade PCR was, you know — what were our certifications, what were the certifications of our suppliers, and then how did we trace within loads? Because the last thing you want is food-grade mixing with non-food-grade.

Mitch Ratcliffe (11:18)

You make this point already, and it was a question I wanted to dig into a bit, which is: with PCR, the sources are very mixed. Where does the feedstock come from? Is it from previously used film, or are we talking about other sources as well?

Kevin Kelly (11:33)

No, you're talking, in the case of food-grade — you're talking previously sourced film for, you know, plastic wrap around pallets. It's not the salad bag that's being brought back to the store and the store drop-off thing.

Mitch Ratcliffe (11:51)

And so this is largely a procurement management issue for you. And do you do a lot of testing of the material you get, or is this something that you take as certified? And is there a certification that you can rely on?

Kevin Kelly (12:04)

Well, I think that's been one of the problems. You have this sort of nebulous process where a company that is making food-grade PCR — it's nebulous. It just sounds strange. It's not what I'm used to. When I'm used to certifications, they go to the FDA, they submit samples, they submit their process, and the FDA will come back and say — give you what's called a letter of no objection, which hardly sounds like an endorsement, a stamp of approval. It's like, we got no objection. So I think that process really actually has to be cleaned up.

There has to be some way — the **Biodegradable Products Institute**, there has to be some way of certifying companies and periodic testing that goes beyond us testing our incoming material. We're a $90 million company. We have the ability to do some testing, and we do, but really we're relying on Dow Chemical and Nova Chemicals to do what they say they're doing, which is sourcing pallet wrap, washing it, washing it again, drying it, repelletizing it, drying it again, to drive out any impurities. So it is a difficult process. We have to have possession from them of the chain going all the way back to the source, but that's a lot of documentation, and I think that's where companies have come to rely on mass balance. But mass balance doesn't tell you anything about food-grade, non-food-grade, and it's also, of course, been manipulated by companies in ways that have undermined a process that could otherwise be helpful.

Mitch Ratcliffe (13:58)

Thinking about what you just said — is a transparency movement needed in order for PCR materials to be truly understood, both by the manufacturer who's going to use the material and the consumer in the long run? Do we need that kind of full life cycle accounting to be available to say this plastic has gone through these steps, so people have confidence about the food safety issues?

Kevin Kelly (14:22)

I think so. I'm trying to imagine in my head how we would do that. That's why there's people smarter and greater than I involved in these things. But I think some way of tracing back, or

some way of testing, or more periodic testing. Or, for instance, you could say, Emerald Packaging, you have to test your material 10, 15 times a year, submit, and it has to be done. You know, actually, that doesn't work. I'm trying to think of a way you could possibly do it, you know, so that it's absolutely ironclad. I'm going to say, I don't quite know how you would do it, but I would frankly prefer that, because I know I'm making all efforts to use food-grade PCR, right? We're documenting, we're maintaining all of our documentation, and we're working only with suppliers that we've gone and visited and certified ourselves.

There are other companies, especially at the beginning when we came out, who were saying — you can make a plastic that has three to five layers in it, right? You're using one plastic on the surface, something in the middle, and another plastic on the surface. And they would say, well, we're using PCR; it doesn't have to be food-grade, because we're putting it in the middle. You know, that protects it. And the company buying — particularly, say, in the produce industry — who aren't educated in these things might think that that sounds reasonable. It's not, of course, because whatever you put in the middle migrates to the surface. So if you've got contaminants in the damn thing, you know they're going to get out of the middle eventually and end up on the surface, and then end up on the food.

And so we had to do a lot of customer education about what they had to get from their supplier in order for them to be reasonably certain that they were using food-grade PCR versus just any old derelict PCR that came from materials that are fine in a garbage bag, but not fine touching food. That education process largely then fell on us. I think we're so early in this — I, you know, frankly, haven't been able to find another bag or package in the store that says it uses food-grade PCR. We're sort of like the canary in the coal mine. A lot of what one might hope would be coming from an industry organization, or the FDA, or a California certifying government body, or a government body that would be checking, you know, whether things were food-grade or not — randomly off the store shelf — all that's fallen on us.

Mitch Ratcliffe (17:18)

That's a huge undertaking, and I can understand now why it's three or four times more expensive to use this material. How did you make the case to Wada Farms or D'Arrigo that this was a good choice? Was it a sustainable, moral suasion argument, or was it a consumers-are-going-to-love-you-for-this? How did you bring them on board?

Kevin Kelly (17:39)

For me, it starts with: this is a great way to make your packaging more sustainable. It starts with the moral argument that I always begin with — that, because that's where I come from. I know one should be thinking about these things as huge marketing opportunities, and they are, I suppose. But for me, it's really about: what can packaging do to move the needle on becoming more environmentally friendly? You know, I guess that just comes out of familial commitment, having to look your kids in the eye and tell them you're actually doing something versus not. And so I always begin the conversation there.

And then I go to the marketing question — consumers will love it. And, oh, by the way, you know, Walmart has a program — that they've revised somewhat — but they have a program really emphasizing post-consumer resin in Walmart brand. And so this is something that will please Walmart, especially if the upcharge is very small or there's no upcharge at all. And in the case of Wada Farms, that's the sale they really took to Walmart. And whoever the purchasing person at Walmart on the other end was knew about the Walmart program, was committed to the Walmart program, and so jumped on the opportunity. That doesn't always happen, but they did, and they saw it both, I think, as an internal possibility to fulfill an internal commitment to the environment, but also a way to market potatoes to consumers using packaging that was more environmentally friendly.

Mitch Ratcliffe (19:27)

If we don't make this transition, what's the outcome for the economy in the long term? Do we essentially choke ourselves on our waste? How do you envision the benefits of the sustainable packaging movement alleviating the crisis that we're entering?

Kevin Kelly (19:45)

I think that the crisis operates on many different levels, right? So let's sort of back up a little bit. You have the greenhouse gas crisis, you have the waste crisis, and they intersect, obviously, but they're two distinct things.

And so in the case of some packaging, I believe there's an argument to be made that it actually does reduce food waste and therefore greenhouse gas. The State of Oregon looked at that question in 2017 in a little-known study that came back and said, in the balance, produce packaging, for instance, reduces greenhouse gas through reduction of food waste, food preservation, shelf life extension, more than it actually contributes to greenhouse gas in the production thereof. So there's this single study floating out there that says that. It's not true in the case of every kind of packaging.

You can certainly ask yourself — and I'm not going to get into this debate — whether we need Ho Hos and Twinkies or not, and whether we need them wrapped, therefore, to get them. So, you know, there is this question on the store shelves of where is packaging beneficial and where it isn't.

I think PCR moves the needle a little. I think it tells you where we are in this process. When one turn of this is close to being circular, right? Maybe we've, like, rounded the bend — one of the hundreds of bends to go to actually form a complete circle. But it's a start. I mean, which is the way, I guess, we sort of have to look at it.

If you're over in my world, the thing about sustainable packaging, and I think this has been true for the last 20 years, is that the technologies exist today to take the entire packaging world into

compostable packaging. We'd then be choking on compostable packaging. But, you know, we'd need a lot of home compost, obviously, to deal with billions of pounds of compostable packaging. I mean, the infrastructure doesn't exist, so on and so forth. The point I'm making here is the technology has been there. The question throughout has been, who's going to pay for it?

Mitch Ratcliffe (22:22)

I think this is an absolutely critical question, and one we hear about with the green premium. I want to dig into this, but we're going to take a quick commercial break, folks. We'll be right back. Stay tuned.

Mitch Ratcliffe (22:37)

Welcome back to Sustainability In Your Ear. Let's continue talking with Kevin Kelly. He is the CEO of Emerald Packaging in Union City, California, and we're talking about the company's investments in developing more sustainable food packaging options. Kevin, you mentioned that the flexible packaging recycling infrastructure in the United States is, let's just say, still very limited. Most curbside programs don't accept it. As you look at the material flow in your industry, are there new business opportunities in collection and processing that you see people missing, that they should be stepping into?

Kevin Kelly (23:12)

Well, I think you're being generous when you say it's limited. It's virtually nonexistent, right? I mean, let's be — the store drop-back, drop-off program is a nice — I don't know, it's nice, but imagine if everybody took their bags back to the store and Safeway became a solid waste dump. You know, it'd be a wake-up call to everybody.

But at any rate, I think there's a big business opportunity in recycling, period. The issue has been on that end of things — the end markets. Okay? So you have recycled material. Where

does it go? In a free market economy, you're dealing with virgin material that's cheaper than its recycled cousin. How do you create markets — not just create markets so that you attract capital into the recycling business, especially now where so many recyclers are going belly up because the end markets don't exist and there's too much competition for materials that can actually be used and resold? Which is true in the food-grade PCR business as well. I mean, how many loads of pallet wrap can you get out of a Walmart distribution center? There's a lot of competition for what are called clean bales. They're super expensive, and then you have to be able to turn around and sell that at a profit.

The perfect example is **Circulus**, which was a company that was created to make PCR, including food-grade PCR. They put a gorgeous facility in the Central Valley — some of the most sophisticated machinery I've ever seen in my life. And I love manufacturing lines. They put another one in Ardmore, Oklahoma, and they were going to put one in Georgia that I think they're finally going ahead with. Was backed by venture capital — backed by a group out of Texas. And I think they looked at it as, wow, look at these EPR programs. There's going to be a real opportunity here. And I'd say three years ago, I would have thought the same. They lasted about 18 months. And venture capital, private equity — which would be one source of capital in order to build out, you know, a private recycling system — recognized that they weren't going to make any money soon. I always said I wanted to be the second or third owner of Circulus, because I was convinced, you know, within a few months of getting to know the market, that they were going to not make it, and that the private equity, which wants to see instantaneous returns, wasn't going to be able to put up with the ups and downs of the current recycling system.

So they ended up selling out to Dow Chemical. You know, Dow Chemical has kept the operation going. They've put some money into it. They closed — I should say they closed the facility in central California. They kept the Ardmore facility going. They're building the facility in Georgia. How much money will Dow put in to expand it? You know, they haven't shown a great appetite to do so. The resin company that has probably put the most money in is Nova

Chemicals, up in Canada, which sort of makes sense, because you have well-developed EPR programs in Canada, right? You have mandates around recycled material use in some provinces, and so Nova's got a pretty good market just there in order to be able to sell the material.

Again, I think — you know, businesses sometimes don't like to hear this, but the word "mandate" is going to be probably the savior of recycling in the United States, because governments mandating post-consumer resin use will drive a market and a viable one, because companies will have to actually use the material in order to hit the mandate.

Mitch Ratcliffe (27:35)

So with EPR laws taking off across the country — but particularly California's **SB 54**, that requires a 65% reduction in single-use plastic waste by 2032 (so six years from now), and it has minimum recycled content thresholds in law as well. How has that changed the game? Are we moving in the right direction? Do you see that policy starting to come into place to put the weight behind the spear?

Kevin Kelly (28:02)

Good question. I think that SB 54 might actually do the opposite. Why? Because, in the original regulations, if a company used PCR, they were given a pound-for-pound credit against their fees. That got wiped out. And now, the overall program — if you get the mandate — is to reduce plastic use by 10%, the use of virgin plastic, by a certain date. I think it's 2028. The low-hanging fruit there is, say, agricultural film, or something that is using a lot of plastic where you can use non-food-grade material all day long, and it doesn't have to be widely used across the supply chain. 8% or 10% is an easy number to hit.

The fees themselves are small enough — believe it or not, even at, say, 60 cents a pound or 80 cents a pound for the worst sort of materials, mixed materials — that it doesn't make sense to

switch to food-grade PCR, which is still, you know — the differential before we went into the war was around $1.30 a pound between it and virgin material.

And so I think the regulation writers have to be more cognizant about the economics and the financial incentives that are being set, both within the fees and within the regulations themselves, in terms of using PCR or compostables as an offset. And one of the problems there — I think you get to the crux of this — is that there's not a lot of conversation between all parties. The regulators aren't talking — we're just now starting, and, you know, it's shame on both parties. We're just now starting to talk to **CAA**, and we're just now starting to talk to **CalRecycle**, and we're really just now beginning to explain the economics of PCR within the structure of an EPR system. And I wish we had had these conversations a year, a year or two ago. It's hard for CalRecycle to find us. It's hard for us to find them in the mix. We're small. I think we've come to more prominence because of the food-grade PCR use, and the fact that we're one of the few doing it, and so folks have begun approaching us.

But in general, you know, having conversation with the packaging industry has been not that fruitful for regulators for decades, and so it isn't a conversation that most have sought out. You know, even if there's one or two of us out there who would like to genuinely have it and like to genuinely engage, it's hard to find us in the mix of "nos" that the American Chemistry Council throws out there for every proposal for reform. So that's a — I don't know if the answer is discombobulated or not, but I'm finding that there's not an easy answer to any of these questions. There has to be a thoughtful answer. To be thoughtful, you have to understand the packaging and the market and the prices within the market, and folks are very often unwilling to talk about prices and where they are today, and where they might be if we actually scale a proper recycling system, with proper PCR manufacturing, and then a proper end market. Those are the kind of conversations I think that need to be had in every state across the country that's developing an EPR program.

Mitch Ratcliffe (32:07)

Absolutely. I couldn't agree more. I'm surprised to hear that those conversations didn't happen as we were preparing for SB 54 to go through the legislative process. But let me ask this: if, in fact, all the pieces fall into place — regulatory, there's demand, and so forth — can you get past 30% PCR in this packaging? Is this a technical limit or a supply limit at this point?

Kevin Kelly (32:34)

It's a technical limit.

Mitch Ratcliffe (32:36)

It's a technical limit. So where can we go?

Kevin Kelly (32:39)

Right now, we've pushed to 50%. So we're not at 100, and that'll take, you know, some time. I think that would take several years, just given variations inside loads. But I think 50% is possible. It's not the best-looking plastic on Earth, you know, but it's certainly a reduction in virgin resin, and it is technically possible with the right company producing low-variation, high-grade PCR. And there are some out there who do that. So we found you can push it along.

I wouldn't want to stake a claim and say all my packaging is going to be 50% PCR today, because I don't think we could find enough consistent material, you know, to come up with 20 million pounds of PCR capable of creating 50% PCR packaging. I just wouldn't want to do it. I think 30% is comfortable, and frankly, above what most companies are willing to attempt, which is around 20.

Mitch Ratcliffe (33:52)

Why is that?

Kevin Kelly (33:54)

It’s — I think this is where we get into, as a smaller, family-owned business, we can de-emphasize profit a little bit and say, okay, we’re going to push this to the technical limit that we’re comfortable with, and we’re going to accept more downtime for cleaning and dealing with loads that might require a lot more babysitting through the production process. We’re willing to do that. I think a lot of companies — once you, you know, if you’re owned by private equity, if you’re publicly owned, it’s a different calculus than the calculus we make. And I think that’s one of the benefits of smaller family-owned businesses. You know, if the family has a sense of social responsibility.

Mitch Ratcliffe (34:44)

Do you think that, in the private equity-dominated world that we’re in right now, we lack the sufficient patient capital to achieve a circular economy in the long term? Or are enough sources of capital starting to migrate toward this in response to things like the war and onshoring our supply chains and so forth, to get us there sometime within our lifetimes —

Kevin Kelly (35:08)

Yours and mine?

Mitch Ratcliffe (35:09)

Yeah, recognizing we’re both of a certain age.

Kevin Kelly (35:12)

My children’s, sure. You know, I’m 65. I don’t see it, unfortunately, happening in my lifetime. Now, I didn’t think I’d see an American Pope in my lifetime either, so there are surprises in the world.

Mitch Ratcliffe (35:30)

Miracles do happen.

Kevin Kelly (35:31)

They do. So I think, all things being possible, I would feel very comfortable saying my 25-year-old kids will live in a very, very different economy than the one I do today. And, you know, I think we do have to get past the private equity mindset. In fact, you know, the problem with where the social goals of society have gone, and where private equity has gone, has really shifted things far more, as you allude to, you know — getting returns within five years and flipping the company and, you know, doing this and doing this and doing this. It's not worried, really at all, about social responsibility. So that's where state mandates, I think, come into play, because you impose those upon companies that might not otherwise wish to engage them.

Mitch Ratcliffe (36:27)

When you imagine a grocery shopper picking up a bag of potatoes or romaine hearts, and they see that it's made with PCR — what do you want them to understand about what that actually means to them and their health and the environment?

Kevin Kelly (36:42)

Well, I want them to know that it doesn't affect their health in any particularly bad way. So we want them to feel comfortable that the recycled material is, in fact, food-grade, and what's touching the food isn't going to somehow, you know, introduce cadmium into their bodies, something like that. So you'd certainly want that — the bare minimum.

Then, I think, you next want them to know that this is a nice step along the road to a better, environmentally friendly packaging world, and that by buying this packaging and not that packaging, they're choosing to support it. You see that most clearly in the experiment that **Taylor Farms** is doing at certain grocery stores with the fiber tray, fiber clamshell. You can choose the all-plastic one, or you can pay 10 cents more and actually get a little bit less

spinach. Which one are you going to choose? And the consumer actually has been going for that fiber tray.

Mitch Ratcliffe (37:50)

All the data says that the consumers want those kinds of things.

Kevin Kelly (37:54)

They're willing to pay a little bit more, or they're willing to take a little bit less for themselves to participate, right? I mean, they feel like, okay, I'm shopping, but I'm actually making a statement in buying this and not that. So I think that allowing consumers to participate in building the world that they would like to build is important messaging that companies should be creating and making, in terms of marketing, what they're trying to sell. Because you do want consumers to feel good about what they're buying, but you want them also to be supporting the world they want, and the world we'd all like to see — which is a far more environmentally friendly one than the one we're in today.

Mitch Ratcliffe (38:42)

Well, we can hope and we can work. As Jane Goodall said, hope is an active verb. It's not something you sit back and wait for the results of.

Kevin Kelly (38:49)

That's good.

Mitch Ratcliffe (38:51)

How can our listeners follow Emerald Packaging's progress? Where should they tune in?

Kevin Kelly (38:56)

Well, I think we keep updates going on our website. I do a lot of interviews, and as we make progress, I tend to write about it or talk about it. Most of the articles about us, or information about us, eventually turns up in our news, the news part of our website. Or I started to use LinkedIn — we're not a big company, so we're not, you know, doing advertising on social media, or advertising on television, or anything like that. But we do try to get the word out there about what we're doing and what we see as possible, both when it comes to PCR, when it comes to EPR laws, and when it comes to compostable materials.

Mitch Ratcliffe (39:43)

Well, Kevin, I hope that talking today helped spread the story, and I really appreciate it. It's been a fascinating conversation. Thanks very much.

Kevin Kelly (39:50)

Oh, I thank you, and thanks for putting up with the complexities of the conversation. I think we captured that pretty well.

Mitch Ratcliffe (40:02)

Welcome back to Sustainability In Your Ear. You've been listening to my conversation with Kevin Kelly, CEO of Emerald Packaging, the largest supplier of flexible packaging to the U.S. produce industry, and the company that has now replaced more than 1 million pounds of virgin polyethylene with post-consumer recycled material, or PCR, in food contact bags that you can buy at Walmart through Wada Farms, and Andy Boy romaine hearts packages. You can learn more about Emerald and Kevin's work at **empack.com** — that's all one word, no space, no dash. Emeraldpackaging.com.

The headline here isn't that million pounds, even though that's an encouraging piece of news. The headline is that Kevin started having this conversation in 2000, when the California Integrated Waste Management Board first measured plastic in landfills and asked the American

Chemistry Council whether the industry might participate in a recycling system. And of course, the answer from the industry was no. Now, 26 years later, Kevin's family-owned bag maker has become, in his own words, the canary in the coal mine for food-grade PCR — because no industry body, no FDA process beyond that letter of no objection we heard about, and no California regulator has built the certification, testing, or chain-of-custody infrastructure this circular economy needs to scale.

Emerald is doing the customer education itself, walking produce companies through the difference between food-grade PCR and what Kevin colorfully called "any old derelict PCR," which can be kind of gray. You've seen this in some Coke bottles, for instance. That gap between what is technically possible and corporate aspirations is the real story behind the million pounds of diverted plastic waste.

Emerald Packaging's home state, California, can teach the rest of the country. You may remember my recent **conversation with Zena Harris of Green Spark Group**, in which California's climate disclosure law is forcing a digital nervous system into being across Hollywood's supply chain — and that regulation is doing what regulation is supposed to do. But, as Kevin said, SB 54 may do the opposite. The law mandates a 65% reduction in single-use plastic waste by 2032 and sets a minimum PCR threshold. But Kevin pointed out that a pound-for-pound PCR credit, which would have encouraged people to replace virgin polyethylene with PCR, was wiped out of the rulemaking, so the fees are low enough that companies can hit early reduction targets through agricultural film collection and other low-hanging fruit, without actually addressing food-grade PCR. And yet, several years after the law was passed, conversations are just starting between CalRecycle, the California Air Resources Board, and packaging makers.

A mandate without the right price levers doesn't drive the necessary transition. It delivers the cheapest path to compliance. And that's a useful warning for every other state currently writing extended producer responsibility laws — including California, Colorado, Maine, and Minnesota

— where the design choices are being made right now that will determine whether or not food-grade PCR ever becomes economical at scale, or stays stuck in the boutique end of the market.

And a third point is the one that I'm going to be pondering after this conversation, and that is about Circulus. It's a PCR plant in California's Central Valley that was backed by Texas private equity and was supposed to be the supply-side answer to food-grade PCR, and it lasted only 18 months before Dow Chemical bought what remained, closed the California facility, while keeping an Oklahoma one running and moving slowly on a third site in Georgia. Kevin's argument is that family-owned manufacturers, who can de-emphasize quarterly profit, are doing more to push PCR forward today than the capital pools that are theoretically supposed to fund our energy and sustainability transition.

That maps closely to the lessons from my recent **conversation with Disney Petit at LiquiDonate** — circular infrastructure works when there is an immediate economic pull, as her platform creates by saving retailers money the day they sign up, and it stalls when investors are asked to wait for a market that requires a mandate, a law, to exist. So the case for patient capital is also a case for mandates designed well enough to create the demand that patience requires.

The billions of pounds of produce packaging that are shipped each year is not a problem one bag maker, one retailer, or one state can solve. And the 25-year arc of Kevin's career argues that we've been waiting for the wrong thing. The technology has existed. It does exist now. The willing operators have existed — a few of them. But what's been missing is the policy architecture, the certification backbone, and the capital structure that would let these operators do at scale what one family-owned company has now proven is possible at 30% PCR levels in produce packaging. The next legislative cycle in every EPR state is where that may be decided, and we'll be tracking it on the show.

So stay tuned, folks. And if this conversation moved you, could you do one thing for the show this week? Pick a single episode from the archive of more than 550 interviews and send it to just

one person who hasn't heard us yet. A short review on your favorite podcast platform is the other way to help, because folks, you're the amplifiers that can spread more ideas to create less waste. So please tell your friends, your family, your co-workers, the people you meet on the street, that they can find Sustainability In Your Ear on Apple Podcasts, Spotify, iHeartRadio, Audible, or whatever purveyor of podcast goodness they prefer.

Thank you for your support. I'm Mitch Ratcliffe. This is Sustainability In Your Ear, and we'll be back with another innovator interview soon. In the meantime, folks, take care of yourself, take care of one another, and let's all take care of this beautiful planet of ours. Have a Green Day.

Podcast Link