Celise BioProducts

Celise Environmental Exposure Prevention System
White Paper

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Introduction

When we think of recycling, we often think of plastic or plastic packaging being thrown in a bin, routinely collected, and sent off to undergo some reverted transformation to become an entirely new product. We think of the ideal consumer, being globally-minded and responsibly disposing of his or her waste in an effort to preserve resources, keep plastic out of our landfills and give the material a second chance. But rarely is this ever the case; in fact, we would be right in thinking this way for about one in every ten pieces of plastic produced.

So what happens to our plastic that we so carefully wash and place in our recycling bins, never missing a collection day? Recent investigations and reports have uncovered that the plastic industry knew recycling the material was never the circular, self-sustaining model it was touted to be. As one top plastic executive explained it to NPR: "selling recycling sold plastic, even if it wasn't true."

If we dissect plastic waste and recycling problems down to their essence, we find that recycling itself is not fundamentally flawed, but that plastic is not suitable for recycling in any capacity that does not diminish the material's post use-life value. Reports dating back to the 1970s have shown that scientists and the plastic industry of the time were aware that the quality of recycled plastic resin was inadequate to achieve true reusability; instead, recycled plastics are often used in lower-quality, single-use plastic packaging designed for landfill disposal. Rather than addressing the material's flawed recyclability, we saw millions of dollars flushed not into infrastructure, but into recycling programs and campaigns with the (successful) end goal of selling more new plastic.

Recycling is a timeless practice that, when coupled with the right materials, can offer infinitely renewable packaging. For instance, metal recycling has been around for centuries. The reason plastic has become the packaging standard over other materials is simple: it costs next to nothing. On paper, this was true for a long time. In reality, society is now uncovering the true costs of plastics in our environment. According to the United Nations Environment Program, Plastic pollution costs the world $13 billion in economic damage to marine ecosystems every year. In the United States, we spend over $11 billion annually on litter clean ups - adding a cost of $0.30 per piece of litter collected to eventually dispose of in a landfill.

In this white paper, we will demonstrate how a Deposit Return System (DRS) program founded on universally compostable materials will achieve full-circle renewability while reducing resource consumption and lowering packaging costs in the long run. our Celise Environmental Exposure Prevention System (CEEPS) is an internally-operated DRS designed to collect our HCM01 material packaging products to either reuse like-new condition packaging, or divert to compost and repurpose as usable, nutrient-rich soil.

CEEPS particularly focuses on what we have come to call the Area of Escape - the part of a full-circle recycling economy where the packaging item has left the Point of Sale and is in the possession of the consumer. CEEPS recognizes that, in order to increase the rate of return of our packaging, three things must happen: (1) We must collaborate with DRS locations (i.e. dispensaries) to clearly communicate to customers how and why they should return their cannabis packaging, (2) We must incentivize customers to return packaging, either through rewards or discounts, to encourage continued returns, and (3) We must mitigate the time a packaging item spends in the Area of Escape, where packaging is most at-risk for improper disposal.

Our goal in sharing our CEEPS vision with you is to leave you with an understanding. We want you to understand why traditional 1-6 plastic recycling is fundamentally flawed. We want you to understand that the plastic material we continue to exploit today will cost us insufferably across health, environment, and economic statuses. But above all, we want you to understand that we have a Vision *to take responsibility for what we produce and create an internal. full-circle waste packaging economy by 2025 that champions recyclability as its underlying principle.* By taking a proactive approach in recouping our waste, we hope to serve as an economic and sustainable model for the future of packaging industries that shows acting sustainably pays long term dividends that we cannot put a price tag on.

Cameron Ross
CEO, Founder of Celise BioProducts

DID YOU KNOW?

The Great Pacific Garbage Patch is about 1.6 million square kilometers – over twice the size of Texas.

Part 1

The Problem With Plastic

WHEN it comes to plastic pollution, there is no shortage of statistics or research reports documenting the negative consequences of plastic consumption. Scientists have estimated that, at our current rate, plastic may reach an irreversible tipping point by 2040. Immediate systemic change is required to recoup, replace, and eliminate plastic reliance as a single-use, universal solution to convenient consumerism. Despite plastic's attractively low costs, it is conservatively estimated to cost over $13 billion to pull our current ocean plastic pollution. The states of California, Oregon and Washington alone spend an estimated $500 million a year removing waste from the Pacific coastline. Across the board, the average cost to pick up a piece of plastic in our communities is tagged at $0.30, or 15-30X the cost of the item.

76%

of 350 million tons of annual plastic produced end up in landfills, with only 9% being recycled.

1 in 3 fish caught for human consumption contain plastic that ends up in our food supply.

8 million tons of plastic enter our oceans every year, on top of the estimated 150 million tons circulating our waterways already.

Only 1 in 1,800 single-use plastics (SUP) are recycled, or 0.06% of over 150 million tons of annual SUP production.

The Shortcomings of Plastic Recycling

IN THE RUINS of Pompeii, archeologists have discovered that mounds of seemingly trash objects placed outside the city walls were not dumped as trash, but were being collected for recycling. In the excavation, mounds of trash were found along the northern most city wall, where some parts were several meters high and contained ceramics and plasters, which is a reusable construction material. Through scientific analysis, researchers found that the city itself was, in part, built out of these trash refuses from outer-city landfills brought back for repurposing as construction material in buildings. It is believed that after the earthquake in Vesuvius 20 years before the volcanic eruption, people collected broken down houses and materials, reusing them as new walls and covering them with plaster to hide the inner layers of trash.

Recycling is not only a practical testament to the creativity of ancient civilization, but a timeless paradigm of optimal waste management. In fact, recycling has been saving humanity invaluable resources for so long, it is still the preferred method of waste management in most industrial markets to keep capital and raw material costs as low as possible. For a modern example, take metals. Metals have been collected, molten down, and repurposed again and again since the Industrial Revolution to save time, money, and resources across the board in new raw material purchasing.

For over 2000 years, the fundamental principles associated with material recycling have outlasted the civilizations that have used it and will continue to do so beyond our own generation. Repurposing materials after an initial use is the key definition of recycling. The issue today is not with recycling itself, but recycling's universal association with plastic (education), our over-reliance on a non-renewable resource (scarcity), and our exploitation of fast, convenient consumerism (economy). In fact, we have associated plastics and most materials with our throw-away habits that plastic single-use items are ubiquitously equivalent to "waste" when a recyclable material is anything but.

Entrepreneurs and innovators today are creating new and exciting ways to repurpose plastic waste. Some examples include compressing and molding plastic into bricks for construction in buildings, sidewalks, or roadways. Other instances include shoes and apparel made from reclaimed plastic, bracelets for non-profits to fund their ocean clean ups, car tires, and other longer-lasting purposes. As creative these approaches to the global plastic crisis are, they do not address the underlying issue with the un-recyclability of plastic itself. With an ever-increasing rate of innovation in our modern economy, and with the knowledge we know now, why do we still rely on an archaic collection system from the 1970s as our packaging standard?

Today, the global plastic recycling infrastructure is incapable of recycling at a faster rate than new plastic production, let alone spur new approaches to increase plastic recycling rates or handle the volume increase. With a global recycling rate of only 18% across all plastic 'waste' management businesses and organizations, only 46 million tons of plastic are recycled every year, compared to the 350 million tons of annual new plastic production. Unless we change our reliance on traditional plastic as a utility material, what will we do when we eventually run out of oil, let alone the economic consequences before reaching that point? How will we adapt before it is too late? What will plastic recovery organizations do when there is no more plastic to recover?

BY THE NUMBERS:
A LOOK AT PLASTIC RELIANCE

220 LBS

Weight of plastic consumed by the average person living in North America or Western Europe every year.

9.1 OZ

Amount of microplastic eaten by the average person annually, equivalent to eating a credit card a week.

525,500

Full dump truck loads of plastic enter our oceans annually.

1,000,000

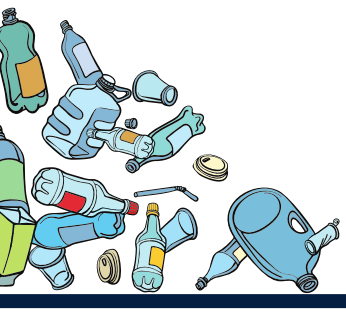
Plastic bags are used, every minute.

100.7

Billion plastic bottles were sold in the US in 2014, or 315 bottles per person...

6X

...and it takes six times the amount of water to produce each bottle than they contain.



Part 2

Back to Basics: Recycling as Compost

How Compostable Packaging Can Create A Full-Circle Recycling Economy

As our societal awareness to the effects of plastic consumption grows, so does our understanding that the plastic standard does not follow the fundamental principles of the recycling system for which it was founded on. Plastic *can* be recycled, and has the *potential* to be recycled, but over 70 years in the making has proven such is not the case.

What we need is an exemplary 'plastic', or low-cost material, with the potential for infinite renewability that creates a circular waste economy aligned with the foundational principles of recycling. Bioplastics have the ability to transform our current packaging landscape as a low-cost material solution that is reusable until repurposed as compost to grow new raw materials. Celise BioProducts' home compostable material, for example, is made with renewable, bio-based raw materials that are non-toxic and are designed for disposal in multi-channel composting systems. Starting in September 2021, our HCM01 vial containers will only cost 1.5X more than their plastic counterparts to the average buyer before our CEEPS DRS program, and are competitively priced in higher quantities.

"But bioplastics in general are not exactly cheap, and what about the quality?" The bioplastic industry is rapidly developing new material blends to achieve equal or better quality in terms of strength, durability and pliability compared to its plastic counterparts, without compromising the sustainable integrity in which they are based on.

When you look at plastic from a bottom-up approach, we see a material that has set an economic benchmark in which the vast majority of current businesses and organizations base their packaging and material decisions on. Think of it this way in terms of single-use plastic disposables - decades of conditioning plastic as a universally accessible material that costs next to nothing is an unparalleled economic benchmark. Plastic is the epitome of what high volume commercialization can achieve.

What is often overlooked from both a consumer and business standpoint is the second and third-order consequences of plastic reliance. Yes - it is cheaper to produce new plastic than to recycle it. But what about all the other costs? Why do we associate the low-cost of the material as a global standard, but neglect to factor in the costs once the material is "disposed of" in a collection bin? Do we consider this or, more accurately, have we adopted a throw-away mentality that relieves us of our responsibilities once our waste enters a collection bin? Such is the foresight thinking of ordered consequences. It costs on average, in the US, $0.30 to collect a single piece of plastic in community clean up programs. For third-order, what about plastic that escapes our collection systems? How much will microplastic contamination of our food, air, and drinking supply cost us as a global society in health care costs? The Guardian has publicly stated that plastic waste can cost us up to $33,000 per ton in environmental damage.

If we look at plastic closely from a bottoms-up perspective, we see it used in virtually every aspect of our lives. Our dependence on the plastic industry's claims and recycling collection programs has desensitized our perspective to mounting waste management issues that we do not coherently understand on the scale in which it is spreading. By choosing to continue using conventional plastic when viable, sustainable alternatives exist is, in fact, robbing others of precarious resources we depend on in all walks of life.

Compostable packaging materials are more closely aligned with recycling fundamentals than their plastic predecessors, and are models for a future circular economy. With more and more emphasis on tackling the world's plastic reliance, compostable packaging can assist in a multitude of ways that compensate for the fallacies of plastic. Compostables are infinitely renewable as compost for future raw material production. Compostable material is also great for *reuse* in high traffic packaging industries, such as the cannabis and adjacent markets or pharmaceutical industries. Reusing packaging can lower the overall use-life cost by spreading it over time. With businesses basing financial models off of batch costs, why do we not batch the total lifespan cost of a product, too?

A key focal point here is that we need to dissociate our liberal use of the term recycling with plastic. An overlooked part of recycling is a material's ability to regenerate itself to its original form while maintaining all of the original qualities or physiological properties. Plastic does not live up to these intentions, whereas recycling metals, glass, and compostables can truly bring the process full-circle, with compostable packaging leading the cost argument.

Reduce, Reuse, Repurpose

As we enter a new age of packaging materials, it is important to remember that recycling is a term that encapsulates the collection and reusability of *any* material. As composting becomes a more mainstream form of waste management across the world, and with the compostable bioplastic industry growing at an accelerated rate, we are starting to *repurpose* these materials as usable, rich compost.

While Celise BioProducts works to build our business model into a full-circle packaging organization via an internal DRS, it is important that we stay aligned with the principles of recycling and avoid repeating the mistakes of plastic. By taking responsibility for properly disposing what we produce, we can effectively *reduce* the amount of new raw material consumption, *reuse* collected packaging to extend the use-life of each product, and *repurpose* non-reusable packaging into compost for agriculture resale.

If we followed these simple principles seventy years ago, the packaging industry could have created a multitude of new recycling economies from reused packaging sales, independent collection services, sterilization processes and new compost revenue streams. It would maintain the philosophy the Romans embodied over 2000 years ago as a functional, working model for material recovery and optimization.

Reduce

To reduce the total amount or rate of new raw material consumption, either through improving reusability, using less material in packaging design, or optimizing package cubic space capacity; Choosing to consume less through purchasing decisions.

Reuse

To reuse existing packaging in order to extend the product's use-life beyond its initial purpose, conserving resources and slowing the rate of waste turnover.

Repurpose

The recycling of a material into rich compost for new agricultural growth; repurposing our non-reusable packaging as compost for new raw material or agricultural development.

Our HCM01 Material:

- *Reduces CO_2 emissions by 70% compared to plastic production*
- *Preserves 0.4 gallons of oil for every 1 lb. produced over plastic*
- *Conserves 2.5X kWh of electricity more than plastic in the manufacturing process*
- *Able to decompose in landfills*
- *Made from infinitely renewable, non-toxic resources*
- *offers a unique bioplastic blend of strength, durability & pliability*

Celise BioProducts:
Home Compostable Material 01 (HCM01)

Our HCM01 material is a proprietary blend of biodegradable and synthetic polymers, curated to achieve sufficient degradation in multi-channel composting environments (home, municipal, or commercial). Our primary product offering, 116mm vial containers (or pre-roll tubes for the cannabis & cbd markets), is made from HCM01, and offers a desired combination of strength, durability, and pliability to rival plastic quality.

Bio-based & Renewable

HCM01 is made from a blend of certified compostable inputs to achieve optimal degradation in composting environments while rivaling plastic quality in strength, durability and pliability. It is a model material product for full-circle DRSs.

Multi-Channel Compostable

Access to composting may be limited to some individuals, and are not able to home compost their containers. HCM01 is intended for universal compost systems, whether at home or in an industrial composting facility.

Product-Market Fit

HCM01 King size pre-roll containers are deigned for the cannabis & CBD markets. They are certified child-resistant, offer a uniquely extended shelf-life of 18 months, and help brands sustainably stand out on the shelf while contributing to ESGs.

Economically Viable

Our Q3 2021 production expansion will decrease our manufacturing costs by over 30% and competitively price our tubes with plastic to make sustainable alternatives more accessible.

CEEPS Model Product

CEEPS Pilot Program will offer DRS collection boxes and channels for used HCM01 tubes. After sanitization, tubes are quality checked and sorted for reuse or to compost, where they fuel new raw materials.

Heading in the Right Direction

The packaging landscape is changing fast. Consumers, policymakers, and corporations all have different views on which direction to take when it comes to purchasing decisions, packaging laws, and material choices. But one thing holds true between us all: we need to drastically reduce or replace our reliance on conventional plastic as a universal single-use waste material and its failing recycling infrastructure.

There is no denying that plastic is a highly resourceful material that has transformed the modern world. Plastic is arguably the most important material of the 20th century given its global impact and applications. When used properly, it can be a versatile solution with a variety of benefits. Plastic can preserve our foods for weeks, be morphed into low-cost custom solutions, and its strength-to-weight ratio enables lighter, durable parts in vehicles to improve overall fuel economy, among many other intelligent applications.

Plastic will always be a part of our lives for centuries to come. Plastic is a utility material that still has endless applications - just not for single-use or recyclable packaging items. It has served an overdue benchmark for modelling future materials off of, setting the precedent to eliminate the negative environmental aspects from the equation. Such is the case with true bioplastics. True bioplastics are rapidly improving to rival plastic in every aspect, without environmental consequences. In knowing what we know now about plastic pollution and the material innovations taking place today, we can start to change for the better. Without immediate action, plastic will continue to collapse and pollute ecosystems, enter our food supplies, contribute to climate change and consume valuable resources destined to occupy valuable landfill space. How will you make a meaningful packaging change? How do you envision your packaging being disposed of? Will a full-circle DRS for your packaging offset cost increases? We need to stop asking questions we know the answer to, and start putting our statements into action.

Part 3

Taking Roots: Celise Environmental Exposure Prevention Systems

C.E.E.P.S

Celise Environmental Exposure Prevention System (CEEPS)

The CEEPS is a process-oriented organizational business model founded on the principles of full-circle renewability and corporate environmental stewardship. CEEPS is designed to: (1) drastically reduce the chance of improper disposal of our packaging once it leaves a point of sale, (2) recoup all of our packaging to reduce resource consumption and reuse as much as possible to lower costs, and (3) compost unusable packaging, either internally or in partnership with community compost facilities, to start the cycle over again. CEEPS engages all aspects of the supply chain to promote the responsible disposal of our packaging with minimal intervention from any one party.

Whereas recycling traditional plastics degrades the quality of the resin after one reuse, CEEPS recycling is infinitely renewable for a full-circle waste economy via compostable packaging. It is designed for high traffic and customer retention establishments that keeps packaging in a returning loop. However, CEEPS is not limited to any one industry, so long as an effective return system is established for either customer or corporate incentivized convenience. CEEPS is a working model, tested on the grounds that businesses with high foot-traffic or high customer retention (i.e. dispensaries, pharmacies, local suppliers, online return systems, etc.) are more likely to succeed in engaging customers to return packaging for reuse with proper incentives. Incentives, in this case, can take a number of forms with different aspects of the supply chain. For example, a vertically-integrated seed-to-sale company could offer "points" in their customer loyalty or rewards program that adds up to a prize of some relation. By working with this type of business, Celise can incentivize the company to integrate said program by offering an initial 2-to-1 perks program between us, where for every returned case of packaging, we provide two free cases back.

Celise can also work directly with outlets, for instance, to set up our own collection return boxes (Deposit Return System, or DRS) for customers to return our packaging to. Incentives here can include applying a $0.10 discount to a customers' order for every HCM01 product returned, and rebating the dispensary or outlet with the number of tubes collected.

A third option that will also work collaboratively with any other model is to partner with existing collection and/or composting organizations. Certifying collection with accredited organizations will further prevent possible environmental exposure from the consumer that eludes the CEEPS collection integrations with points of sales.

The key takeaway here is that CEEPS is a foundational model that adheres to a defined set of clear principles for optimal packaging recycling and individual corporate responsibility. As a packaging provider of high quality compostable single-use products for cannabis, medical, and adjacent industries, CEEPS is uniquely instrumental to Celise BioProducts as a packaging manufacturer by providing a vertically-integrated system of packaging supply, collection, and appropriate end-use diversion for re-used packaging or composting. Each step in the CEEP cycle is defined below:

1. Packaging Source

The Packaging Source is the primary source of packaging supply, either by new packaging manufacturing via raw material or reuse via a collection system, to provide from the O.M. or primary packaging source.

2. Packaging Location

The Packaging Location is where the packaging meets the contained product(s), where it is then primed to go out to points of sales.

3. Point of Sale

The Point of Sale is the location where the packaged product meets the customer. This is an area of high traffic or retention, which is essential in understanding for DRS success. Points of Sales are also areas of interest for Collection Boxes, which we can reward locations to incentivize customer returns.

Area of Escape

Where packaging products leave the distribution network and are in the customer's possession. This is not part of the system, but is the most critical component of the cycle in mitigating environmental exposure by incentivizing consumers to reuse or return packaging.

4. Return to Point of Sale (or Packaging Source)

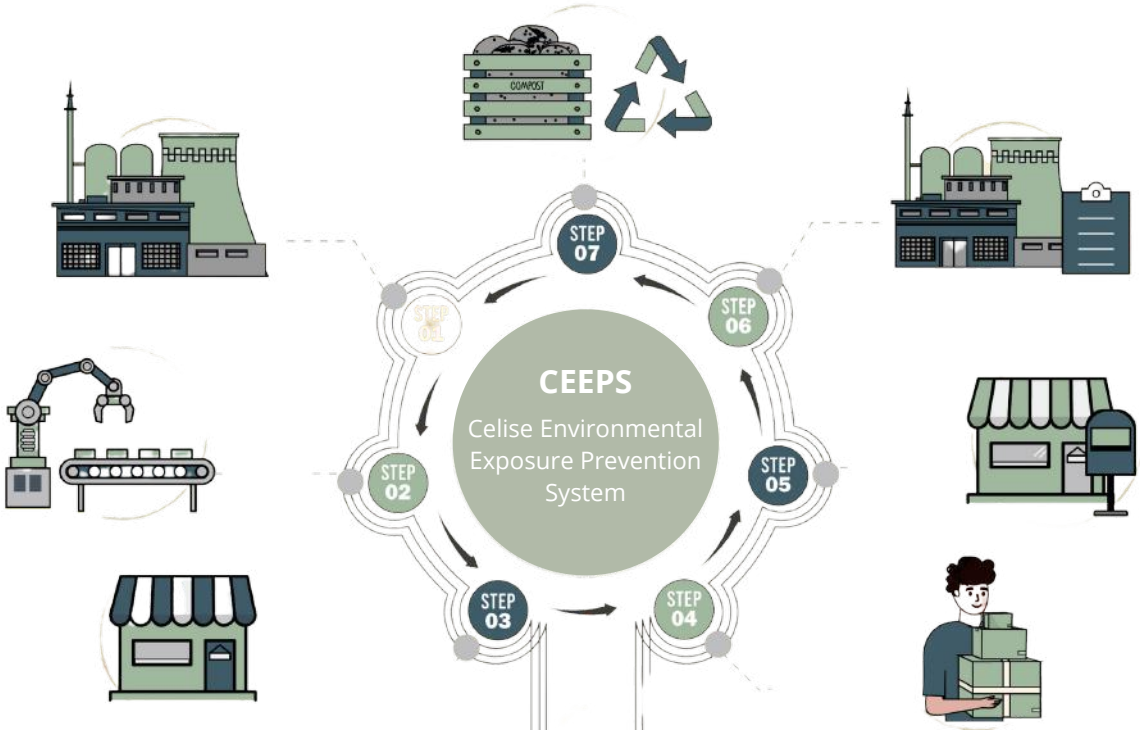
Part of the Cycle where the consumer returns packaging to a Collection Box at his or her high traffic location. The customer can also mail in packaging byproducts to the Packaging Source directly.

5. Sterilize Collections

Once packaging has been collected and returned to the Packaging Source, each piece is individually sterilized and disinfected in a sustainable way. A Quality Check will determine if a piece is fit for reuse to re-enter the cycle, or unfit and redirected to composting.

6. Divert to Internal Compost for Repurposing

At Celise, our in-house composting system will be capable of effectively composting our non-reusable collections for repurpose and resale as commercial compost, which can be used to grow something new.



How CEEPS Works

CEEPS begins at the packaging source. The packaging source is Celise BioProducts or one of our registered distribution partners. The packaging location is where the packaging and product meet, after the sale or reception from the packaging source. After the product has been packaged, it is sent to the outlet or Point of Sale, where it is readily available for customer purchase. The Point of Sale is an essential component of CEEPS in engaging with customers to incentivize returns at the storefront for the DRS.

The most critical, at-risk step in the CEEPS is No. 4, the Area of Escape. This part is where the packaged product has left the Point of Sale and is now in the possession of the customer. The Area of Escape is the focal point of CEEPS, as it is the area where the effective recycling of our packaging is made or lost. To reduce the amount of improperly disposed packaging, and to encourage returns, education by Celise and affiliates are vital in consumer awareness. The DRS program must visibly engage customers in aiding environmental stewardship. Customers must recognize the available collection service to them and the negative consequences associated when packaging is not returned - communicating this point is key. Incentives go a long way in engaging customers, especially monetarily or in associated currency (reward points) that Celise will rebate back to Points of Sales or establishments that return packaging.

When a customer returns their packaging to the Point of Sale, the packaging is collected to be returned or collected to the packaging source/designated facility. Here is where customer perks for returns are applied and tallied. Once Celise collects the returned packaging, the collections are sterilized in a non-toxic, sustainable process, where they are then sent to the final stage of the cycle. After a quality check of every returned packaging product, there are two end possibilities for the collections: either they pass the quality check and are reused, or they are diverted to compost to come full-circle.

18-29

The 18-29 age group is both the largest cannabis consuming (25% market share) and recycling demographic (92% reported recycling rate).

40%

The average retention rate of recreational marijuana dispensaries is 40 percent, and eighty percent of revenue comes from twenty percent of a location's customers.

6/10

Nearly six in 10 consumers surveyed are willing to change their shopping habits to reduce environmental impact. Eight in 10 respondents indicate sustainability is important for them.

Implementation

Celise is currently working on establishing a DRS pilot program in the greater Denver, CO metropolitan area in partnership with local dispensaries and organizations. Starting in late 2021/early 2022, we plan to work with 25-50 of Denver's 446 dispensaries (5-10%) to begin accepting our 116mm pre-roll container tubes for reuse or repurposing. Depending on the volume of tubes sold within the Denver Pilot Program, our goal is to collect, at a minimum, 25% of total tube quantities sold at each DRS outlet/dispensary in the first six months.

There is a sign up form on our website for dispensaries or organizations interested in participating in our DRS pilot program. We are currently welcoming any to all submissions from within the Denver Metro area. Dispensaries that are part of the program will receive a collection bin from us to keep inside the store for customers to return our pre-roll tubes. We ask that customers remove labels before placing the tubes in the collection bin.

To start, we ask that dispensaries call or email to inform us when their collection bin is full to signify us to come pick them up. Since this is a pilot program, we are not sure what to expect until we have a better understanding of collection rates to set up a routine collection system. We will then collect the full return box, and rebate the dispensary $0.10 per tube collected for customer incentivized discounts to bring back the containers.

Incentive Program Options

Option 1: Discount Rebates

For every HCM01 pre-roll tube collected, the dispensary will apply a $0.10 discount to the customer's current purchase. Upon collection, we will issue a rebate for all tubes accounted for to cover the applied discounts to customers.

Option 2: Perk Points

Dispensaries that offer rewards programs that distribute points to customers for purchases can opt-in to offer a point or points of equal value to $.10 applied to the returning customer for their DRS contribution.

Option 3: B2B 2-for-1 Program

Brands using our HCM01 containers can issue their own DRS programs to recollect their containers. For every box returned to us, we'll send back two new ones!

Option 4: Community Applied Milestones

For every 1,000 HCM01 pre-roll tubes collected at a given dispensary location, said location will receive $100 to distribute back to customers. For example, a 1% discount up to $10 can be applied to every purchase until the rewarded $100 is expended. The more tubes returned at a location, the more cash back to independent locations to distribute.

Option 5: B2C Online or Direct Returns

For online sales, or customers that return collected packaging back to their brand, businesses can issue a discount code to apply to their next order in equal value.

Option 6: Partnership Collection Systems

Participating organizations, such as local upcycling or commercial composting facilities willing to accept our tubes can add them to their collection list for reuse or repurpose outside of CEEPS. Our mission is to prevent plastic from escaping into the natural environment or landfills through whatever means necessary.

Option 7: Direct Consumer Intervention

Customers can collect their containers and send them back to us directly, where we'll send them a check for $0.10 per tube collected.

Post Collection Process

After collected HCM01 tubes have returned to us, they must undergo a thorough, non-toxic, and sustainable sterilization process. This is to prevent any potential contaminants from entering compost piles or interacting with packaged products. After a complete sterilization, the tubes must each be independently inspected by a dedicated quality assurance and control team on location. The Quality Control Check-List will test the tubes: (1) sterilization, (2) living hinge reusability and inspect for any cracks or creases that may cause the child-resistant design to fail, and (3) any nicks or blemishes that signify degradation or less-than new quality. If a tube passes the QA check-list, it will be sent for repackaging to go out as recouped and reused packaging in like-new or excellent condition. Returned tubes that do not pass the QA checklist are diverted to either an internal compost heap (when available) or sent to an independent composting facility that accepts our containers.

Environmental Benefits of a Full-Circle Packaging Organization

With a product line of home or commercially compostable packaging alternatives to traditional plastics, recycling our packaging will enable us to reduce our resource consumption through reusing like-new collections, or repurpose unusable packaging as compost to restart the cycle. An infinitely renewable waste packaging economy can eventually reach self-sustainability through raw resource supplier partnerships in buying certified compost from packaging composters to use in CPG-acre agriculture (grown from our own products).

Taking responsibility for our packaging products also enables us to divert packaging waste that would otherwise occupy valuable landfill space. It also helps in preventing these tubes from going to traditional recycling facilities, or entering our natural ecosystems and waterways. Having packaging made from bio-based, non-toxic resources further prevents food supply & marine life contamination.

With a successful implementation of our pilot program, we look to become a state and international DRS provider for our packaging to make proper recycling of our packaging as accessible as possible. We also hope to show other packaging providers currently using plastic that the potential to reduce long-term packaging cost increases and create additional revenue streams is achievable through increasing corporate environmental responsibility, not less of it, to create a win-win self sustaining model for the packaging industry.

Brand & Consumer Benefits

The CEEPS may be a cyclical model of renewable packaging sustainability, but at its core is a foundation based on customer and Point-of-Sale engagement. The Area of Exposure is the most critically at risk section of the CEEPS cycle where packaging is most at risk for eluding the proper disposal method. When Businesses can effectively communicate the benefits of a DRS program for HCM01 packaging, Consumers will respond, whether engaging or not, to determine how to better refine the program.

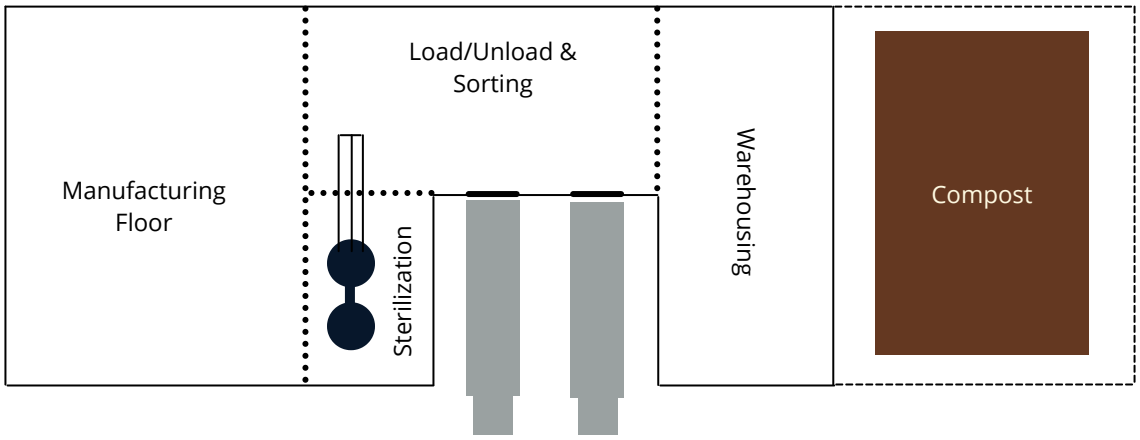
For brands and dispensaries, participating in a DRS program like CEEPS is a visible portrayal of environmental consciousness and activism. Consumers are engaging more and more with brands that enable them to practice good sustainability habits. Dispensaries may see increased customer retention to collection locations over those that do not.

For consumers, receiving a reward or credit in some extent for returning something at a location they frequently visit is likely to increase customer retention and brand loyalty, especially with a growing eco-conscious customer segment. Studies have shown that consumers are more likely to engage with brands and corporate programs with monetary or equal credit value rewards.

2025: Our Mission

Our purpose as a company is to prove full-circle, responsible waste organizations can increase economic, environmental, and customer value through promoting sustainable packaging recycling. We're working to bring our manufacturing, DRS, and composting operation in-house by 2025. We plan to partner with international upcycling and composting organizations to further collect or accept our packaging to achieve full-circle renewability. Through environmental education and stewardship, coupled with lean product testing to improve incentive programs, we plan to optimize our DRS engagement rate to a minimum rate of return of 35% of monthly circulating volume and have a 100% bioproduct degradation rate per product within 18 months.

Celise BioProducts x CEEPS Building Blueprint



Conclusion

With a mounting plastic pollution problem, the need for more sustainable and resourceful recycling solutions has never been greater. Compostable packaging on its own can improve the sustainability and resourcefulness of our production processes, but are not enough on their own without the proper disposal education and infrastructure or else we will never win the war on packaging pollution. By taking responsibility for the packaging we produce, and working to build the necessary infrastructure for proper asset management, Celise BioProducts can achieve a full-circle DRS packaging economy for all of our customer packaging outlets. Incentivizing customers to return our packaging will create sufficient, self-sustaining demand to further recycle and prevent their packaging from escaping the collection system. Furthermore, collecting our own packaging will enable us to designate returns as reusable in like-new quality, or divert to internal composting for less-than-new condition returns to create a new revenue stream while providing rich compost to grow new resources.