



ONE
STEP
CLOSER™

Where Regeneration Meets Packaging

Designing Products from Soil to Shelf

A Reckoning with Our Food System

In this delicate moment in our world, our food system and those who participate in it are facing a quiet reckoning. A reckoning with the role we play in protecting the lands and waters that nourish us. A reckoning with the overwhelming flood of information surrounding ingredients, chemicals, materials, and health. And perhaps most deeply, a reckoning with our desire to make choices that preserve the wellbeing of ourselves, our loved ones, and the earth beneath our feet.

We reckon with these choices each time we step amongst the grocery aisles lined with vibrant snack packaging and shiny new beverages. We increasingly seek products grown and packaged with integrity, transparency, and ecological care. Demand for healthy and sustainable products continues to rise and as a result, we swim through a sea of new certifications and jargon trying to convince us of which products are better than the next.

Beneath this growing complexity, however, is something much deeper: a collective longing to reconnect with the origins of what nourishes us. To understand not only what is in our food, but how it was grown, who grew it, and what relationship it holds with the earth itself. It is within this cultural shift that regenerative agriculture has emerged as one of the most compelling and hopeful paradigms shaping the future of food.

We are continuing to understand the greater nourishment that comes when we revere and protect our soils. The connection between food and earth is, ultimately, a direct link between farms and our fate. From emerging brands to major retailers, the language of soil health, biodiversity, resilience, and regeneration is increasingly finding its way onto shelves, menus, investment strategies, and supply chain commitments. Beneath the momentum lies something deeper than trend: a growing recognition that the health of people and planet are inextricably linked, and that our agricultural systems must move beyond simply sustaining toward actively restoring.

And yet, a striking contradiction remains. **Many of these thoughtfully grown products still arrive wrapped in ways that reflect linear packaging systems rooted in extraction, disposability, and waste.** Products cultivated through regenerative principles are too often delivered through systems that do not reflect the same level of stewardship.

The Rise of Regenerative Agriculture

Regenerative agriculture, while experiencing an energized and long-overdue moment within the food systems space, is far from a new concept. Its roots stretch back through generations of Indigenous stewardship practices grounded in holistic land management, reciprocity, biodiversity, and soil restoration. Indigenous communities have long understood what modern societies are only beginning to remember: that there is no true separation between people and the natural world. The health of one is inseparable from the health of the other.

This relationship is reflected powerfully in the fact that **Indigenous lands steward nearly 80% of the world's biodiversity**; an extraordinary testament to the deep care, wisdom, and ecological interconnectedness embedded within these people and practices.

Many regenerative farming practices, such as intercropping, agroforestry, and permaculture, emerge from Indigenous ways of knowing and relating to the earth - wisdom carried across generations through careful stewardship, observation, and a deep respect for all living beings.



What would it look like if the values embedded in regenerative agriculture extended through the entire product journey - including the packaging that carries carefully tended-to products into our hands?

As society continues to grapple with the consequences of extractive systems and the destructive ways in which we have shaped our economies, industries, and food systems, a broader shift is beginning to emerge. We are moving beyond the paradigm of simply “doing less harm” - the foundation of much of modern sustainability work - and toward something more restorative. More reciprocal. More alive. Regeneration asks not only how we sustain ecosystems, but how we heal them.

In many ways, this growing movement represents both innovation and remembrance. We are turning back toward ancient ways of relating to land and drawing inspiration from some of the world’s most steadfast stewards. We are combining this knowledge with new, innovative tools; we see this in the rise of regenerative farming, the development of carbon credit trading platforms, discussion of nature based solutions, and the rise of the Regenerative Organic Certification framework - one of the most comprehensive product certifications on the market today.

As regenerative agriculture gains momentum throughout the natural foods space, an important question begins to emerge: **what would it look like if the values embedded within regenerative organic products extended through the entire product journey, including the packaging that carries them? What if the same care devoted to restoring soil, protecting biodiversity, and nourishing communities was reflected in the ways we package intentionally grown products?**

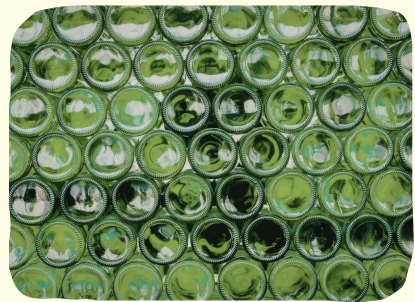


The Evolution of Circular Packaging

In much the same way, the concept of circularity is not new, either. Long before “circular economy” became a defining framework within conversations around sustainable consumption/production, many cultures and communities inherently lived within cyclical systems where materials, resources, food, and goods were reused, repaired, repurposed, and returned back into the flow of everyday life. Waste, as we know it today, is in many ways a modern construct born from industrialization, convenience culture, and systems designed around disposability.

As packaging consumption rapidly accelerated throughout the 20th century with the rise of plastic innovation, early packaging sustainability efforts emerged largely in response to growing waste streams and environmental concern. Historically, these efforts focused primarily on incremental improvements within a fundamentally linear system: lightweighting materials, improving recyclability, and diverting waste from landfill. While important, many of these approaches centered on managing waste after its creation rather than fundamentally redesigning the systems that produced it in the first place.

Over time, the conversation began to evolve. Circularity introduced a broader systems-based lens, one that challenged the traditional “take, make, waste” model and instead asked how materials could remain in continuous circulation through reuse, refill, recovery, and regeneration. Circular economy frameworks have gained traction through organizations like the Ellen MacArthur Foundation and as a result, we’re continuing to see large producers of plastic packaging shift away from linear “take-make-waste” models toward other promising models that reduce waste at the source.



The Principles Beneath the Practice

Much like living ecosystems, circular systems are designed around cycles rather than endpoints where materials, resources, and value move through regenerative loops instead of toward an end destination as waste. And while the intention of both the regenerative agriculture movement and circular economy has always been similar, the industries and implementation pathways have simply developed apart.

To better understand the nexus of regeneration and circularity - especially as we think in the context of product and packaging design - it's important to take a closer look at what "regeneration" means and how it can be enabled through design. According to [Carol Sanford](#), founder of the Regenerative Business Development and Regenerative Change Agent Development communities, as well as a leading author, educator, and voice in regenerative design thinking...

“Regeneration is a paradigm and accompanying set of capabilities based on the awareness that every life form is unique and nested within other, larger living systems. Every life form grows and expresses itself in order to benefit the living wholes within which it is embedded and receives benefits from these wholes in return. It is capable of regeneration only to the extent that it is part of a larger, value-adding process.”

-Carol Sanford

In essence, regeneration is a lens through which we can better understand and embrace reciprocity and interconnectedness. The act of regeneration is to embrace our inextricable relationship to the earth and everything that it is made of. This concept can be further explored through [Carol's 7 "First Principles"](#) - wholes, potential, essence, development, nested, nodes, and fields. Drawn from living systems, these principles help us better understand the invisible relationships that connect seemingly separate parts into a larger whole. Through this lens, the boundaries between soil, product, packaging, and consumer begin to soften. Each becomes part of a continuous web of relationships, carrying both influence and responsibility within the larger living system.

Other predominant frameworks around regenerative thinking include those from voices such as John T. Lyle (considered to be the “father of regenerative design”), Bill Reed, and Pamela Mang who have long argued that healthy systems are not linear, but living - defined by relationships, reciprocity, adaptation, and continuous renewal. And newer regenerative visionaries at Mad Agriculture have advanced a broader “soil to shelf” philosophy that recognizes that regeneration cannot stop at the farm gate. Through their work, regeneration is framed not simply as a set of agricultural practices, but as an interconnected system spanning land stewardship, business design, markets, community, and culture - all principles that feel deeply aligned with those working to enable a more circular economy.

Thus, it is imperative to reframe our thinking around the topics of regenerative agriculture and circularity; these are not separate sustainability conversations, they are different expressions of regenerative design.

When we keep these concepts separate in our mind and in our practice, it often creates a disconnect between the product’s intent and the story its packaging ultimately tells. Take for example:

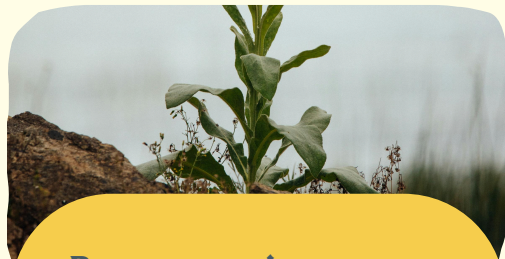
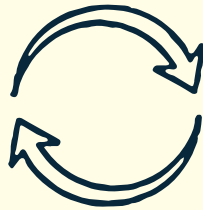
- Regeneratively grown products wrapped in multi-layer, unrecyclable packaging systems that still embody a linear “take, make, waste” model - conflicting with the cyclical and restorative principles at the heart of regeneration
- Compostable packaging treated as a standalone solution, without brands taking an active role in addressing the infrastructure, recovery pathways, and consumer education challenges needed to ensure materials return safely and effectively to the earth
- Brands choose hard-to-recycle materials without playing an active role in advocacy and/or investment in the end-of-life systems needed to adequately recover and manage said materials
- Packaging decisions made separately from sourcing, product philosophy, and long-term systems thinking - creating a disconnect between the integrity of the product itself and the story its packaging ultimately tells

Shared Principles, Different Languages

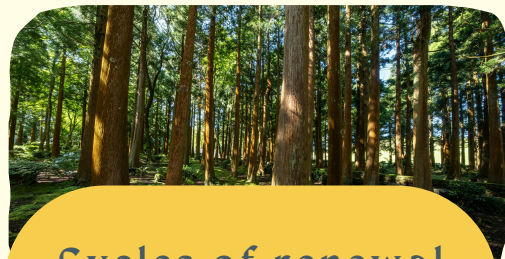
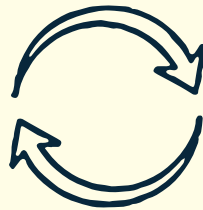
Regenerative Agriculture



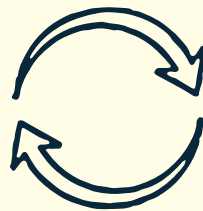
Soil as a living system



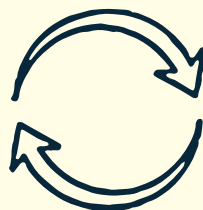
Restoration over extraction



Cycles of renewal in nature



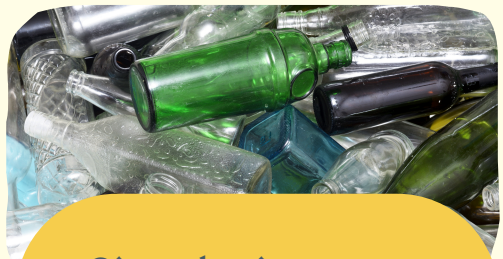
Biodiversity and reciprocity



Circular Economy



Materials as living resources



Circulation over disposal



Cycles of renewal in materials



Interdependence and recovery

Bridging the Gap Through Intentional Packaging Design

This is a call to action for those tirelessly working to protect our planet; regeneration cannot stop at the farm. If we are serious about building systems that give back more than they take, then packaging must evolve from a protective layer to an active participant in the cycle of renewal.



To do so requires a reframing of packaging itself - not as a downstream compliance exercise, but as an extension of a product's ecological and social values. There is a symbolic essence to packaging - to the act of how we wrap, carry, and ultimately deliver products into the world and into our lives. Packaging is not merely a functional layer or a marketing surface; it is the final expression of a product's values system. It shapes the way we encounter, experience, and relate to what we consume. Packaging is a vessel carrying not only food, but philosophy, stewardship, and responsibility into the hands of consumers.

The same care devoted to soil health, biodiversity, ingredient sourcing, and farmer wellbeing must also shape the systems through which these products are packaged, transported, recovered, and/or returned. When this occurs, packaging becomes part of the story of regeneration.

A truly regenerative approach asks us to widen our field of view. It challenges us to move beyond evaluating ingredients alone and instead consider the entire journey of a product from soil and sourcing to materials, packaging, recovery, and return.

The question becomes not only how was this product grown? but also how was it designed to move through the world?

Regenerative Packaging Pathways:



Reuse & refill systems in which packaging is designed for durability, recovery, and repeated circulation rather than single-use disposal - keeping materials in motion for as long as possible while reducing dependence on virgin resource extraction



Advancing interoperability and systems collaboration across brands, municipalities, retailers, recovery partners, and industry collaboratives to create packaging ecosystems that function more cohesively, efficiently, and cyclically over time



Packaging systems designed with end-of-life in mind from the outset, considering collection, sorting, recovery, composting, and consumer participation as integral parts of the design brief rather than afterthoughts



Thoughtful use of post-consumer recycled (PCR) content to extend the life of existing materials, reduce demand for virgin plastic production, and strengthen circular material markets



Development of alternative materials thoughtfully matched to appropriate recovery pathways, ecological contexts, and use cases, recognizing that material substitution alone cannot solve a systems challenge



Regenerative stewardship in growing and harvesting of biomaterials used in the development of alternatives to plastics (such as seaweed, corn, sugarcane, wood, etc.)



Greater investment by brands in the infrastructure required to fulfill the promises embedded within packaging claims, including composting access, reuse logistics, reverse supply chains, and material recovery systems

The Industry Imperative

There is a cross-industry imperative for collaboration if we are truly to bring these solutions to life. If sustainability practitioners across sectors have learned anything over the past decade, it is that complex systems challenges cannot be solved in isolation. The realities of climate change, waste, biodiversity loss, and resource extraction do not adhere to organizational charts, supply chain silos, or industry boundaries and neither can the solutions to these complex, shared challenges.

Addressing these challenges requires us to move beyond fragmented efforts and isolated innovation. It asks us to step out from behind our individual desks, disciplines, and areas of expertise and begin weaving our work together in ways that foster greater harmonization, shared understanding, pooled resources, and long-term collective visioning. Because ultimately, regeneration is not achieved through singular interventions, but through interconnected systems capable of supporting one another over time.

We need disruption in how we are approaching our work, and we need reconnection in how we are working together. True regeneration within our food system asks agricultural leaders to engage with packaging systems, packaging innovators to understand ecological cycles, brands to move beyond compliance-driven sustainability, and collaboratives to serve as connective tissue between these worlds.



Thankfully, there is growing momentum to move away from siloed sustainability efforts and toward more integrative, collaborative, and intentional systems thinking.

Across the natural products and sustainability landscape, organizations and convenings are increasingly creating space for these intersections to emerge, bridging conversations around agriculture, climate, biodiversity, human health, and circularity in ways that more closely mirror the interconnectedness of living systems themselves:



**One Step
Closer**

OSC is a natural products industry membership organization and leadership community, brings together brands and changemakers to collaboratively advance regenerative business, packaging innovation, climate initiatives, and broader systems transformation through peer engagement and collective action.



**Institute of
Regeneration**

Institute of Regeneration cultivates long-term regenerative leadership through communities like the “Regenerative Community of Praxis,” which challenge practitioners to move beyond fragmented problem-solving and instead develop the relational thinking, systems awareness, and coordinated action necessary for meaningful planetary transformation.



Planet Haus

Planet FWD’s recently launched PlanetHaus concept brings together leaders across food, packaging, climate, and innovation to explore more integrated pathways toward regenerative and circular systems design by offering visceral and experiential exploration of what regenerative product design looks and feels like.



**Ellen MacArthur
Foundation**

Ellen MacArthur Foundation helps catalyze a broader transformation in how industries design, use, recover, and relate to materials through the development of circular economy frameworks inspired by living systems and that are applicable across industries.

Case Study: CIRCULANDIA

Connecting Regenerative Agriculture, Local Food Systems, and Reusable Packaging

Europe's newly launched CIRCULANDIA project offers a compelling example of what integrated regenerative design can look like in practice.

Funded through the Horizon Europe program, CIRCULANDIA is a €9.6 million initiative bringing together 35 organizations across 12 countries to create circular and climate-resilient food systems. Rather than treating agriculture, food distribution, and packaging as separate domains, the project intentionally integrates three interconnected value chains:

- Regenerative agriculture
- Local food production and distribution
- Reusable packaging systems

Its central premise is simple yet profound: meaningful systems change requires transforming the entire food ecosystem.

In many ways, CIRCULANDIA represents a living example of the opportunity explored throughout this article: closing the gap between regenerative ingredients and regenerative product systems. By aligning farming practices, food distribution models, and reusable packaging infrastructure, the initiative offers a glimpse into what a truly "soil-to-shelf" regenerative future could look like—one in which the values cultivated in the soil are carried consistently through every stage of the product journey.

Read more about the initiative [here](#).



**Funded by
the European Union**

Weaving the Threads

As you continue to reckon with your sourcing and purchasing decisions, whether for your household or within your business operations, these organizations exist to support and guide you along a more regenerative path. Creating your own framework for regenerative sourcing and consumption, one that pulls threads from both agricultural and packaging systems, can strengthen your role as a steward and deepen your participation in the restoration of our planet.

As you define what regeneration means within your own context, create dialogue around these topics within your community and workplace. Establish regenerative principles that extend across your entire value chain from ingredient sourcing and material selection to packaging, recovery, and end-of-life systems. Invite others into the conversation.

Build bridges between sourcing teams and packaging teams, between sustainability practitioners and operational leaders, between ecological values and whole product design decisions. Bring more people into this active and vibrant mycelial network of practice, learning, and transformation.

Because regeneration will not emerge from isolated actions. It will be cultivated through relationships, shared visioning, courageous collaboration, and a collective willingness to redesign the systems that shape how we nourish both people and the planet.



Written by Natalie Kra

Natalie is a food systems strategist, sustainability practitioner, and storyteller whose work explores the connections between soil, food, packaging, and the systems that shape our daily lives. Her experience spans sustainable sourcing, product innovation, and circular packaging design, and she is driven by a deep curiosity around the ways in which we grow, design, consume, and connect.



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