REGENERATIVE AGRICULTURE AND ITS IMPACT ON INGREDIENTS & THE PLANET WITH LINDA APPEL LIPSIUS

As manufacturers, kombucha producers have a unique ability to control what goes into consumer products, and we can make choices that serve the needs of our customers, the bottom line, and the earth. Linda Appel Lipsius, founder of Teatulia, will discuss the importance of regenerative agriculture in ingredient selection, both for quality and for impact.

Teatulia

WHAT WE'LL COVER

What is regenerative agriculture?

How is it different from organic, biodynamic, etc?

How has it manifested at the Teatulia Tea Garden?

Why should regenerative ingredients matter to Kombucha brands?

What can you do?





REGENERATIVE: DEFINED



As a philosophy and approach to land management, regenerative agriculture asks us to think about how all aspects of agriculture are connected through a web—a network of entities who grow, enhance, exchange, distribute, and consume goods and services—instead of a linear supply chain. It's about farming and ranching in a style that nourishes people and the earth, with specific practices varying from grower to grower and from region to region. There's no strict rule book, but the holistic principles behind the dynamic system of regenerative agriculture are meant to restore soil and ecosystem health, address inequity, and leave our land, waters, and climate in better shape for future generations



Regenerative organic agriculture not only maintains resources but improves them. With only about 60 years of topsoil remaining at current practices, nothing less will do.



Holistic management provides a framework for decisionmaking — rooted in the fundamentals of ecosystem processes — and with a suite of planning procedures that include planned grazing, land planning, financial planning, and ecological monitoring.







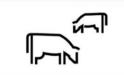
Regenerative Organic Certified™ is a revolutionary new certification for food, textiles, and personal care ingredients. ROC™ farms and products meet the highest standards in the world for soil health, animal welfare, and farmworker fairness.





- Builds Soil Organic Matter
- Conservation Tillage
- Cover Crops
- Crop Rotations
- · No GMOs or Gene Editing
- No Soilless Systems
- No Synthetic Inputs
- Promotes Biodiversity
- Rotational Grazing





ANIMAL WELFARE

- Five Freedoms
 - Freedom from discomfort
 - · Freedom from fear & distress
 - Freedom from hunger
 - Freedom from pain, injury or disease
 - Freedom to express normal behavior
- · Grass-Fed/Pasture-Raised
- Limited Transport
- No CAFOs
- Suitable Shelter



SOCIAL FAIRNESS

- · Capacity Building
- Democratic Organizations
- Fair Payments for Farmers
- Freedom of Association
- Good Working Conditions
- Living Wages
- Long Term Commitments
- No Forced Labor
- Transparency and Accountability





...VS CONVENTIONAL / INDUSTRIAL / EXTRACTIVE AGRICULTURE

Relies on chemical inputs and extractive practices that that deplete soil and the planet. Primary focus is financial profit generation through chemical inputs, raw material processing and constant interventions and in a single minded focus of profit and convenience to the detriment of nature to bow to human desires.

... the industrial agricultural system that dominates Western food and fiber supply chains incentivizes practices that promote soil erosion at a rate of 10 to 100 times higher than soil formation; nutrient runoff and harmful algal blooms in freshwater and coastal systems; and monocropping and other threats to local biodiversity, including critical pollinators. These systems compartmentalize natural resources and focus on the yields of individual crops.

NRDC: https://www.nrdc.org/stories/regenerative-agriculture-101#whatis





VS OTHER CERTS: ORGANIC, BIODYNAMIC, ETC.

Certified















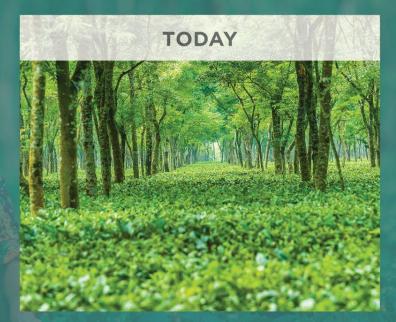


OUR 3,000 ACRE REGENERATIVE FARM

We spent the last 20 years transforming barren land into a thriving ecosystem.











THE FUKUOKA METHOD: DO-NO-HARM FARMING

You heard that right. Reduced or no tilling, crop rotation, compost, and grazing methods are all do-no-harm farming techniques. Because we choose not to till, the soil stays put. Tilling disrupts the structure of the soil, increasing the chances of erosion and soil runoff. Instead, we practice the Masanobu Fukuoka method which uses no unnatural irrigation, pesticides, or machinery and strives to be in harmony with nature. We also use local cow dung and compost as a natural and organic fertilizer.





INTENTIONAL PLANT DIVERSITY

The goal of intentional plant diversity in agriculture is to simulate an ecosystem. In our garden, we plant neem trees, lemongrass, and other herbs to mimic the canopy of a forest. This variety of plants attracts a variety of insects and animals, just like the ecosystem. This intentional biodiversity enriches the condition of the soil by allowing living roots to grow in the soil all year. This aerates the soil and helps lock more carbon into the soil, where it belongs.





CLOSED CARBON CYCLE

As we mentioned above, common factory farming methods disrupt and degrade the soil. An unintended consequence of this is the release of carbon into the air. Through photosynthesis, plants take CO2 from the air and convert it into carbohydrates or simple sugars. These carbohydrates are consumed by microorganisms and stored in the soil, thus transporting carbon from the air into the ground. Every spring, instead of plowing the ground and stirring the carbon pot, we leave the soil and groundcover plants be to close the carbon loop. Reducing the amount of carbon in the atmosphere is a crucial step in fighting climate change.





REGENERATIVE FARMED INGREDIENTS IMPACT

Each of these elements ultimately leads to healthier soil. Healthy soil leads to an improved landscape and a bettertasting harvest. Regenerative agriculture highlights the key elements of finding strength in diversity: of plants, of microorganisms, and of farming techniques. This cyclical practice has the power to transform the planet. Our garden is a living example that we can reverse the damages of climate change with the implementation of regenerative agriculture.





WHY SHOULD THIS MATTER TO THE KOMBUCHA INDUSTRY?

- Kombucha is an incredibly high-engagement category.
- Flavor and process and health benefits are so critical to your appeal.
- Since there are so very few ingredients, why not make them the best they can be?





WHAT CAN YOU DO?

- Support regenerative and organic farmers by purchases their raw ingredients.
- Use your on pack messaging, to tout your ingredients and your intentional sourcing strategy.
- Tell the story of your regenerative producers.
- Encourage your customers to learn more an informed consumer base will demand.





RESOURCES

To Watch:

- Kiss the Ground
- The Biggest Little Farm
- <u>Eating Animals</u>
- How to Fight Desertification and Reverse Climate Change: Allan Savory's TED Talk

To Read:

- Omnivore's Dilemma by Michael Pollan
- Organic Manifesto by Maria Rodale
- <u>Perilous Bounty</u> by Tom Philpott
- The Worst Hard Time by Timothy Egan
- Regenerative Agriculture and the Soil Carbon Solution White Paper by the Rodale Institute











THANK YOU



