PepsiCo’s Regenerative Agriculture Guidelines

Version 1.1: Regenerate, Restore & Protect

May 2025

Contents

Introduction

Summary of Updates to Previous Version

V1.1 updates provide clarity over actions and areas in scope for PepsiCo's Regenerative agriculture goal and further define key terms such as "supply shed." As external standards continue to evolve, we regularly review these Guidelines to ensure alignment and plan to publish an updated V2.0 by the end of 2025."

Purpose of the Guidelines

The guidelines provide an implementation framework for the PepsiCo Regenerative agriculture goal. This framework is intended to promote consistency across PepsiCo's global deployment of our Regenerative agriculture goal, as well as clearly articulate what is meant by any statements PepsiCo may make about Regenerative, Restored or Protected acres or materials. As the Regenerative agriculture goal is a global goal, the guidelines are designed to incorporate enough flexibility to address the most pressing impact areas across differing circumstances found within landscapes PepsiCo relies on for our agricultural raw material sourcing, as outlined in PepsiCo's supplier playbook.[1]
PepsiCo reserves the right to modify this document, which will be reviewed regularly.

Setting the Stage

Agriculture is core to PepsiCo's business as a leading drinks and convenient foods company. Our products depend on a safe, high-quality, and affordable supply of agricultural raw materials to meet the demands of our business as well as the expectations of our consumers, customers, and other stakeholders. Agriculture sits at the nexus of three critical agendas for PepsiCo: Business Impact, World Relevance and Corporate Reputation. Given the importance of agricultural raw materials to PepsiCo, we strive to champion the best thinking, practices, and technology to support sustainable and regenerative agriculture within our global agricultural supply chain.

[1] pepsico.com/docs/default-source/sustainability-and-esg-topics/positive-agriculture-playbook/positive-agriculture-supplier-playbook---english.pdf?sfvrsn=a7849894_9

Figure 1: *Agriculture sits at the nexus of three critical agendas: Business Impact, World Relevance and Corporate Reputation*

Agriculture is the foundation of the food system and the root of PepsiCo's business. To make our drinks and convenient foods, we use more than 35 agricultural crops and ingredients from approximately 60 countries. Agriculture contributes to and is vulnerable to many of the environmental and social challenges we currently face around the world, but it can also be part of solutions.

Conventional agriculture practices have contributed to significant soil, nature and biodiversity loss and degradation over the last century as well as water stress (reduced availability and quality of water). According to the UN, more than half of fertile topsoil is now degraded, reducing its potential to grow food and sequester carbon, increasing the vulnerability of land to extreme weather events, and impacting water quality and biodiversity[2]. As the impacts of these practices have become clear, a movement has grown to shift to regenerative practices.

We believe that spreading positive farming practices across our agricultural sourcing regions will help us to become a faster, stronger, and better company. A healthier planet, with productive soils, healthy watersheds and ecosystems, thriving rural communities, and dignity in farming as a profession helps ensure that PepsiCo can continue to provide drinks and convenient foods that make our customers smile and support our future growth. Our work in regenerative agricultural systems can also help contribute to reductions and removals of greenhouse gas emissions.

While these guidelines are focused on PepsiCo's Regenerative agriculture goal, PepsiCo's Positive Agriculture agenda includes interconnected ambitions, including regenerative agriculture, sustainable sourcing, and improved livelihoods through programming aiming to support economic prosperity and farm and farm worker security. These three areas of action work together to support improved resiliency of agricultural production systems.

[2] IPCC report: IPCC — Intergovernmental Panel on Climate Change

Scope

Defining Regenerated, Restored & Protected Acres

Regenerative agriculture aims to support a resilient farming system by regenerating, restoring and protecting farmland and natural ecosystems in farming landscapes. It incorporates a series of principles and practices focused on soil health, greenhouse gas (GHG) reductions and removals as well as watershed health, biodiversity, and communities. At its heart, Regenerative agriculture helps drive financial profitability, community resilience, and ecological viability as the world and the climate change to enable farmers to keep farming into the future.

Regenerative farming practices are not a new concept. They are applied across the world, from large-scale commercial farming systems to smallholder farms.

While the specific definition of Regenerative agriculture, Restoration and Protection differs from organization to organization, generally Regenerative agriculture supports several **beneficial outcomes** for farmers, society, and companies that depend on agricultural supply chains and the ecosystems and communities that support them. Our approach to Regenerative agriculture aims to generate positive impact across these five dimensions:

- **Soil Health:** Build the health and fertility of the soil to support a healthy and productive ecosystem above and below ground, including improving the soil microbiome, and increase farm resilience.
- **Climate Mitigation and Adaptation:** Increase resilience to climate change impacts, sequester carbon, and reduce emissions.
- **Watershed Health**: Improve watershed health through reducing nutrient runoff and other water pollution, improving water use efficiency, and supporting water quality and improved surface water flows and groundwater recharge.
- **Biodiversity:** Support the ecosystem services and functions within agricultural production through interventions to support pollinators, beneficial pests, or other native species within farms (e.g., flower rows, intercropping) or adjacent to agricultural production areas (e.g., hedge rows, retiring marginal lands, etc.). Actions that contribute to the protection and improved management of natural ecosystems and biodiversity across our agricultural landscapes, supporting the ecosystem services and health of ecosystems we depend on, are also included. This includes ecosystem conservation and protection, for example in areas at risk of conversion to agricultural land, and restoration, which may include assisted or natural regeneration of native habitat, particularly in locations previously cleared for agriculture (e.g., forests, peatlands, grasslands).
- **Livelihoods:** Improve livelihoods and increasing access to supply chains through dedicated programming aiming to support economic prosperity and farm and farm worker security in accordance with PepsiCo's Livelihoods Improvement Framework for Engagement (LIFE). The programming has a focus on the most vulnerable farming communities linked to our value chains, who often face systemic inequalities, limited access to resources and heightened economic and social vulnerabilities

Efforts to regenerate, restore, and protect agricultural lands and supporting ecosystems often overlap and are mutually supportive. As such, there is not a bright-line definitional distinction among the three actions, and PepsiCo's goal intentionally brings all three together to encourage more holistic action in agricultural landscapes. However, for the purpose of internal tracking of our progress towards the goal, we consider the following:

An acre is considered as delivering **Regenerative agriculture** impact when it is an acre utilized to grow crops and when the adoption of Regenerative agriculture practices results in quantified improvements on productive lands in at least two of the environmental outcome areas among soil, water, climate, and the promotion of biodiversity within productive acres, with a preference for climate to be one impact area.

An acre is considered as contributing to **Nature Restoration or Protection** when activities lead to biodiversity and ecological improvements on lands not used for agricultural production, and which remain out of agricultural production in the future, but which enhance the resilience of the ecosystem in the farming landscape. This could include demonstrating improvement of converted or degraded for agriculture to desired ecological states (including improved ecosystem connectivity), increased areas under natural ecosystem protection or increased protected area management effectiveness.

While acres may fall into multiple of these categories, PepsiCo will report a given acre only once to avoid double-counting towards the goal. For internal planning and accounting, acres are considered "Restored" or "Protected" only when they are not the same acres as the farm plots producing the PepsiCo ingredients; on those farm plots, the Regenerative agriculture impact framework should apply.

This document outlines the key requirements for a unit of land to be reportable against PepsiCo's Regenerative agriculture goal. Once an acre is delivering specific impact in line with the guidance contained in this document, it qualifies to be reported as "Regenerative, Restored or Protected."

This classification is a waypoint, not an endpoint, in the Regenerative agriculture journey. The objective of our goal—and the core of PepsiCo Positive Agriculture activation—is one of continuous improvement. PepsiCo strives to partner with farmers to continually increase the magnitude of positive impacts and the resilience of communities, farmers, ecosystems, and agricultural lands over time. In this spirit, PepsiCo also engages with farmers who have already been using Regenerative practices prior to PepsiCo engagement. To the extent their land shows continuous improvement based on the guidance outlined in this document, PepsiCo may include their farmland in the regenerative acres reported against our goal. The farmer leaders at the forefront of this change play an essential role in supporting other farmers during their transition, normalizing Regenerative agriculture, and providing evidence of the best practices for various regions and farming systems.

Ingredient Scope of the Regenerative Agriculture Goal

PepsiCo's Regenerative agriculture goal applies to Key Ingredients, within our purchasing control, including: rapeseed / canola oils, cocoa & chocolate ingredients, whole corn, corn oil, palm oil, chip stock potatoes, rice, soybean oil, sunflower oil, beet sugar, cane sugar, raw milk (feed acres only), blended oils, corn meal, corn grits, dairy seasoning (feed acres only), high fructose corn and wheat syrup, soy, wheat, wheat flour, and whole oats.

PepsiCo Value Chain; Areas Eligible for Regenerate, Restore and Protect Interventions

Acres must be part of PepsiCo's value chain to count towards PepsiCo's Regenerative agriculture goal. PepsiCo requires different levels of verification for the eligible categories within PepsiCo's value chain. Note that we consider a spectrum of validation/verification that ranges from self-assessment to 2nd-party field verification (verification by someone who is not the farmer/implementer but may be involved in the project) to 3rd-party verification, which are further described in the MMRV section of this document.

PepsiCo has developed and published a practice bank that defines common Regenerative agriculture practices and maps them against the outcome areas. It does not represent a comprehensive list, but a starting point for suggestion. We have also assessed certifications that may meet the engaged definition, and that assessment can be found here.

Regenerative Agriculture and Sustainable Sourcing

It is important to distinguish between our Regenerative Agriculture and Sustainable Sourcing goals, which are different but complementary. PepsiCo's Sustainable Sourcing approach aims to provide a strong risk management foundation, while our Regenerative Agriculture framework aims to restore and protect the farming ecosystem to foster a resilient agricultural system.

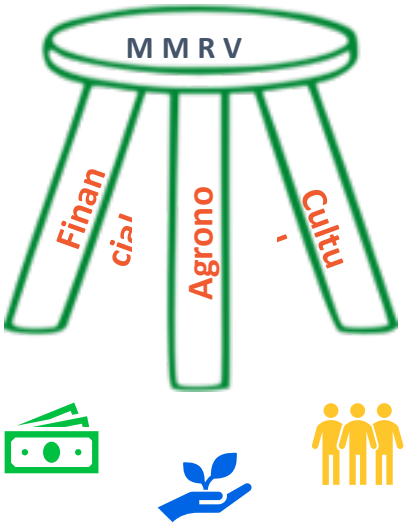
Implementation

Farmer and Community Support Approach

PepsiCo aims to drive regenerative, restorative and protective outcomes by collaborating with farmers, communities, and organizations that align with our goal to create shared value. While PepsiCo does not control all farming conditions, such as labour practices, we engage with farmers using a "three-legged stool" model for successful activation as part of our Regenerative agriculture initiative.

The first leg is expert agronomic support, as implementing Regenerative agriculture practices can be challenging and may require adjustments to operations that could impact yields if not properly managed with the help of knowledgeable agronomists. The second leg is financial support, acknowledging that some Regenerative agriculture practices may involve upfront costs or transition periods before becoming profitable. The third leg is cultural support, recognizing that farmers and rural communities have the best understanding of their own contexts, and that peer learning and community support are essential for adopting new practices.

The foundation of these efforts is robust data measurement, monitoring, reporting, and verification (MMRV), allowing farmers and stakeholders to report accurately and credibly to PepsiCo on the impacts of Regenerative agriculture practices. We support data management systems that aim to ensure reliability while minimizing the burden on farmers' time and maintaining strong confidentiality, with farmers retaining ownership and control over their data.



MMRV Requirements

Regenerative Agriculture, Restoration and Protection as a Self-Assessment

Regenerative agriculture attainment is not intended to be a third-party certification or a program for which every farmer must undergo a verification audit on every acre. Rather, Regenerative agriculture is designed to be a continuous improvement process that is entered into by each farmer, implementer, or program in the way that best fits their farming and ecosystem circumstances.

Regenerative impact on an acre is assessed through use of qualified tools either directly by the farmer or implementer (self-assessment) or by a second party assessor. PepsiCo views the self-assessment as the **farmer's or implementer's** interpretation and representation of the Regenerative agricultural practices and technologies currently implemented on the farm or adjacent landscape which have led to measurable positive impact, regardless of whether it was completed by the farmer or with assistance.

Any acre that is reporting impact must be represented by either a direct reporting or as part of a sampling of impact (see section on baseline & sampling below).

Prior to PepsiCo recognizing the Regenerative agriculture results as final, Data Quality Assurance shall be carried out on the data. Data Quality Assurance confirms the self-assessments have been completed in full and according to instructions. It must be performed for each group of data. Generally, this analysis may be done by the receiving entity – which may include, but is not limited to, a farmer/grower, an implementer, a supplier to PepsiCo or PepsiCo.

Defining terms:

- Self-Assessments: are those in which the farmer/grower or project implementer evaluates their own Regenerative agriculture practices within a specified timeframe and geographical

area and completes their own Regenerative agriculture Self-Assessment Questionnaire. To complete a self-assessment, growers or implementers must understand the concepts and practices used within Regenerative agriculture. If required, farmers can obtain support for questions they have about the Regenerative agriculture goal by either a qualified second party (someone other than the grower or implementer, who may or may not be involved in the project), a supplier to PepsiCo or PepsiCo.

- Second Party Assessments: involve the review of Regenerative agriculture practices by someone other than the farmer/grower or implementer to support a self-assessment on behalf of the grower or implementer; second party assessments are the recommended approach when farmers or implementers require support with completing a self-assessment. The second party assessor may be someone involved in the project, versus a third-party assessor which would be independent. The second party assessor's role is to interview the farmers to support them with completing the assessment and to provide the assessment results to PepsiCo; the data is then recognized by PepsiCo as a self-assessment. Often the second party assessor may provide an analysis of the results that can be used to drive improvement actions. PepsiCo may serve as the second party assessor when we have local capabilities and resources available and a direct relationship with the growers or, where not available, PepsiCo may work with a qualified second party or through a supplier.
- Data Validation: involves cross-referencing aggregated results against what local experts and third-party risk assessments indicate. Discrepancies between self-assessment results and known (or strongly perceived) risks are addressed through farmer follow-up. The Data Validation process is performed by PepsiCo to ensure accurate reporting of Regenerative agriculture acres and may also be used to obtain additional information from the farmers that will shed light on the root causes for their sustainability opportunities, aiding in the development of more targeted Regenerative agriculture practices.
- Third Party Verification: is a recognized review conducted by an independent party who is entirely separate from the project and who is engaged to determine that reported information accurately represents practices and activities in accordance with documented internal guidelines and applicable established external standards.
- Accumulation and Time Validity: for purposes of accounting for the number of Regenerative acres, each year stands alone. Any acres from previous years not maintained are lost and cannot be counted if they are not reporting regen outcomes in the current year. For acres that continue to report year over year, further guidance is forthcoming from the GHGP and other external industry guidance on the ability to account for the multi-year accumulation of soil carbon. It is strongly encouraged to keep acres in a Regenerative agriculture program over time as the ability to count "rotational" acres allows a Regenerative agriculture activation to incentivize long-term actions on each parcel of land involved.

Regenerative Agriculture Management / Practice Uptake Groups

As Regenerative agriculture is about positive change on the ground, PepsiCo engages with groups of farmers who are implementing practices that lead to improvements. These groups can be developed by PepsiCo, implementation partners, suppliers, or others based on geography, crop, practice uptake, soil type or other factors. Relevant groupings are approved by PepsiCo's Sustainable Ag team. For example, a group of farmers using irrigation may all be working towards more efficient irrigation together and choose a complementary set of actions that also contribute to soil, carbon or

biodiversity, or a group of farmers covering multiple PepsiCo crops may have similar soils in a geography and form a logical group for action.

Each group must follow the relevant sampling methodology for reporting. Regenerative agriculture reporting may include all acres in the rotation for which two impacts are reported. Acres associated with GHG reductions reporting may not exceed acreage planted in the crop being purchased by PepsiCo or its suppliers. Other impacts outside of GHG reduction may be claimed for rotational, adjacent land, and Restore and Protect acres. This approach may be updated following the release of the final Forest Land and Agriculture and Greenhouse Gas Protocol or other related guidance.

The initial year an acre will be counted as delivering Regenerative agriculture impact is when at least two relevant impacts are measured vs. baseline. Over time, the preference is for improvement to be counted on a three-year rolling average vs. baseline.

Tools for Measuring Impacts

Pepsico has tools for measuring outcomes. These tools have been evaluated based on their robustness, broad applicability, and credibility. These tools and methods must be used in a management/practice uptake group based on appropriate sampling guidance. This list is reviewed periodically, and tools and methods may be added or removed at PepsiCo's discretion. Additionally, suppliers, farmers, and implementers may submit a request to have a new tool or method added.

Baselines and Sampling Protocol

This guidance applies in the absence of either:

- direct measurement of impact by each farm in a reporting group, or
- a more rigorous sampling methodology required by a particular tool or program leveraged to measure on-farm GHG emissions.
    - For example, if a program is measuring climate as one of its impact areas and leverages the ISCC+ greenhouse gas module, the sampling methodology defined by that protocol may be followed if it exceeds the protocol below.

If all farms measure and report impact, or if a more rigorous sampling methodology is required or provided by the tool or program used, those measurements or protocols are used.

The guidance below is only relevant to projects promoting a consistent on-farm intervention across a homogeneous farmer population (for example, programs that promote adoption of a specific practice across the program population). If farmers in a program population select a widely varied set of practices, are implementing practices in conditions that would lead to widely varied outcomes, or if PepsiCo/a supplier wants to determine the individual progress of each farm, the actions and impacts on each farm shall be measured/modelled.

a. The farmer population to be sampled must homogenous, accounting for elements such as similar farm size, soil type, geographic location, and baseline practices.
b. Intervention groups can either sample a minimum of the square root of the total number of participating farmers, or follow sample size guidance established by the Sustainable Agriculture Initiative Platform:

Number of participating farmers	0-30	31-200	201-300	301-400	401-500	501-1,000	1,001-4,000	4,001-30,000	30,000+
GHG measurement sample size	Every farmer	30	33	34	35	37	39	40	41

c. In the first year of measurement, farmers selected for sampling must represent a random selection of participating farmers.

d. Preference for the same or similar farms to provide data annually (best efforts, as some attrition is expected) to enable year-on-year comparison.

e. A single **baseline** must be established for each grower group, and the methodology for establishing the baseline must be documented and the sampling must follow the guidance above. The baseline must be created through project-based modelling (see f.), or if it is determined that project-based modelling using control fields will not be representative of historical scenario for the location, (1) historical data from the sample group can be used to generate a baseline from the same model used for intervention data, or (2) an industry specific figure may be used if developed by a credible source for that specific region and crop.

f. If the **baseline** will be calculated through project-based modelling, data must be collected on control fields representative of "conventional" practices among each of the selected farmers in the growing region. Baseline data must be collected for the first three years of reporting (during which acres can also be counted towards our target). Baseline can also be constructed based on three years of historical data if available and accurate. Reconstruction of a baseline based on modelled impact of practices implemented is allowed and must be thoroughly documented, including what actual data and assumptions were used. This means that if the land shows continuous improvement as outlined in these Guidelines, even if the initial practices began before PepsiCo's baseline year, those acres can count towards our goal. Example - a farmer could have implemented soil health practices in 2010 and still be getting additional improvements in soil health in 2023. If modelled or measured impact shows continuous improvement, those acres count as Regenerative.

g. Modelled Regenerative agriculture outcomes can be achieved through implementation of Regenerative practices, and impact must be calculated using information from at least one representative field per farm selected for sampling. The land area included in the sample must represent 10% of the acres under Regenerative practices and management on the farm. For example, if a 500-acre farm is selected for sampling and it implements cover crops on 100 acres, data from at least one field of at least 10 acres planted in cover crops may be used to complete the tools to measure each of the outcome areas.

This guidance may be updated as science-based industry norms and guidance become widely available.

Certifications and Their Relationship with Regen "Engaged" Acres

PepsiCo recognizes several certifications that, while not sufficient to report acres as "Regenerative," meet the **"Engaged"** acres requirement. Additional impact measurement is needed to recognize acres under any certification as **"Regenerative or Impacted."**

Ongoing Certification Analysis:

- PepsiCo's sustainable agriculture team is continuing to evaluate certifications.
- New certifications may be added to the list, and current versions will continue to be evaluated to ensure the most up-to-date certification is recognized.
- PepsiCo buyers can advise which certifications and versions are currently recognized.
- PepsiCo evaluates which Regenerative agriculture practices are promoted within the certification standard and the extent to which these practices address the relevant risks and opportunities for the grower group.

pep+ perspective

The following certifications may meet the "Engaged" acres requirement, with full or conditional recognition:

FULL RECOGNITION:

3.0 – Gold Level

Version 4.0

CONDITIONAL RECOGNITION:

3.0 – Silver or Bronze

Conclusion

PepsiCo's Regenerative Agriculture Guidelines provide a framework for activation and accounting towards our Regenerative Agriculture goal. We strive to partner with farmers, communities and other supply chain actors to support the transition to Regenerative agricultural systems and resilient landscapes for farmers and communities and report credibly against the improvements that happen over time. These guidelines will be reviewed and updated periodically.