

Soil Carbon Initiative Farm Commitment & Verification Standard



Rapidly scaling regenerative agriculture through commitments and verification

Version 2.0

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2. Key Terms and Definitions

Action Element: A farming management practice and commitment in the Field Plan that facilitates Soil Health Outcomes and address SCI's Regenerative Pillars.

Acre: 43,560 square feet (4,047 square meters).

Approved Laboratory/Laboratory: A Laboratory identified by the Standard Operator as capable of providing soil testing services in alignment with the Soil Carbon Initiative Farm Commitment & Verification Standard lab soil testing requirements.

Enrolled Acres: The number of Acres committed to Regenerative Management under the Field Plan(s).

Enrolled: The status assigned to Farmers and companies who have completed the Soil Carbon Initiative's Soil and Climate Health Initiative Commitment & Verification Program enrollment process.

Enrollment: The process in which a Farmer or company joins the Soil Carbon Initiative's Soil and Climate Health Initiative Commitment & Verification Program.

Equivalency Pathways:

- 1. A formal acknowledgment of the partial or full recognition of a separate entity's program or standard requirements as meeting the same goals as, achieving the same outcomes as, or having the same requirements as, elements of the Soil Carbon Initiative Farm Commitment & Verification Standard.
- 2. A formal acknowledgment of the partial or full recognition of a Farmer's historical regenerative transition and adopted regenerative practices. A Farmer must have documented Evidence and/or soil testing that is comparable to the Soil Carbon Initiative Farm Commitment & Verification Standard.

Evidence: Proof that Action Elements and commitments have been implemented.

Farm: One or more tracts of working lands under the control and management of a Farmer.

Farmer: The working lands manager with primary responsibility for decisions related to management practices of crops or livestock and demonstrable authority to implement changes in management and to obligate a Farm to comply with the Soil Carbon Initiative Farm Commitment & Verification Standard.

Farm Standard: The shortened term used to refer to the Farm Commitment & Verification Standard.

Farm Transition Fund: A program in the SCI programs ecosystem that provides a range of funding offers to eligible Farmers in the Verification Program.

Field: A set of Enrolled Acres with similar soil and production types and practices across those Acres. In certain situations, slope may be a factor in determining appropriate Field organization.





Field Plan: The plan outlining changes or additions to the management of a Farm aimed at producing regenerative and Soil Health Outcomes.

Guidance: Within the Soil Carbon Initiative Farm Commitment & Verification Standard, language providing additional interpretation or anecdotal information on a specific standard requirement for the purposes of clarification.

Indicator: Soil Carbon Initiative's Soil and Climate Health Initiative Commitment & Verification Program measurements and metrics selected to trend soil and ecosystem health and Farm progress over time.

Regenerative Management: Is defined by the SCI Regenerative Pillars:

- P1. Minimize Soil Disturbance
- P2. Living Roots in the Ground Year Round
- P3. Keeping Year Round Soil Coverage
- P4. Maximizing Diversity Above and Below Ground
- P5. Reducing Synthetic Inputs
- P6. Continuous Learning
- P7. Appropriate Integration of Livestock

SCI Office Hours: A monthly learning opportunity provided to Enrolled Farmers.

Soil Carbon Initiative (SCI): A commitment and verification program with an intent to scale the Acres under Regenerative Management in order to deliver regenerative outcomes: soil health, increased biodiversity, improved water quality and nutrient density, climate resiliency and greater Farm and rural prosperity.

SCI Certificate of Verification: An official program document that is renewed annually and provides proof that a farm has met the requirements of the SCI Farm Standard, as verified by the third-party verifier, and outlines the scope of verification (e.g., Verification Level, number of Enrolled Acres, products etc.), for that farm.

Soil Health Outcomes: Positive trends in soil health tracked by lab and Field soil testing.

Soil Health Visual Evaluations: A set of three soil health tests that are performed in the Field. The Farmer has a choice to execute one of the three tests.

Verification Levels: Criteria outlined in the Soil Carbon Initiative Farm Commitment & Verification Standard that detail the specific pillar and outcomes milestones required to demonstrate continuous improvement in the Soil Carbon Initiative's Soil and Climate Health Initiative Commitment & Verification Program.

Verification Program: The shortened term used to refer to the Soil & Climate Health Initiative Commitment & Verification Program





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4. Introduction

The Soil Carbon Initiative (SCI) is a program of Green America's Center for Sustainability Solutions, which brings together diverse groups of stakeholders to solve complex sustainability problems that no individual business, organization, or leader can solve alone.

A core component of SCI is the Soil & Climate Health Initiative Commitment & Verification Program ("Verification Program"), an independent, outcomes-based system of assurance for validating and communicating regenerative agriculture commitments, actions, and results from the field to the consumer.

4.1 Soil Carbon Initiative Vision

SCI's vision is that everyone who touches soil can be supported to unlock the soil's potential for advancing a better future for the planet and all her people.

4.2 SCI's Programs Ecosystem

Transitioning to a regenerative food system is complex. Although the social, economic and environmental benefits of a successful transition to regenerative agriculture are multiple and profound, there are significant hurdles to overcome along the way.

SCI's programs ecosystem seeks to address these interwoven challenges, from the Farm through the entire supply chain to the consumer, by using a multi-faceted approach that consists of:

- Supporting Farmers in adopting regenerative practices, including via direct financial support;
- Working with soil health experts and advancing learning networks to rapidly accelerate the skills and resiliency of participating Farmers;
- Supporting brands and supply chain partners to engage in the transition of their value chains;
- Verifying both Farmer and company participants' regenerative outcomes; and
- Communicating these stories through trust and transparency to retailers, consumers, investors and other food system stakeholders.

More information about SCI's programs ecosystem may be found at our website, <u>soilcarboninitiative.org</u>, or by contacting a member of the SCI team.

4.3 Soil and Climate Health Initiative Commitment & Verification Program Overview

The Verification Program intends to scale the Acres under Regenerative Management in order to deliver regenerative outcomes: soil health, increased biodiversity, improved water quality and nutrient density, climate resiliency and greater Farm and rural prosperity.

The Verification Program supports Farms by providing a practical, science-based framework for Regenerative Management planning to achieve a Farm's desired outcomes, alongside Field and lab tests to track regenerative and Soil Health Outcomes. These measurement tools are designed to provide useful, practical information for Farmers and reasonable assurance that





Farms are achieving soil regeneration and restoration of the ecosystems supporting working lands.

The adoption of Regenerative Management on-Farm entails risk in an already high-risk endeavor. The required testing prioritizes metrics that show changes in key soil health and landscape indicators, enabling Farmers to develop their observational skills for land regeneration. SCI recognizes that regenerative agriculture is a mindset that embraces learning. Whether a Farmer is just beginning their regenerative journey or is a master of regenerative agriculture, the Verification Program supports their efforts through its Continuous Learning Pillar. Refer to Section 5.4.2 Continuous Learning for more information.

The Verification Program engages both Farms and companies along the supply chain in actions that support the transition to Regenerative Management on an increasing number of Acres over time. Its design ensures that players across the agricultural system have confidence that progress is being made and learning is happening at the Farm and company level. Both supply and demand commitment to soil health is central to systemic success.

Verification earns both Farms and companies the right to use the "Soil & Climate Health Initiative Verified" Label ("the Label") and make third-party verified claims.

The Verification Program is guided by two distinct standards documents, both of which are designed to facilitate independent third-party verification and enable credible consumer-facing claims.

- 1. The Farm Commitment & Verification Standard ("Farm Standard") requires Enrolled Farmers to:
 - Develop and implement three-year Field Plans that address the SCI Regenerative Pillars (Pillars).
 - o Target continuous improvement over a baseline, and
 - Track and report Soil Health Outcomes.
- 2. The Company Commitment & Verification Standard ("Company Standard") (forthcoming, to be made available at our website) requires Enrolled brands, companies, processors, aggregators and other supply chain actors to:
 - **Assess** the land impact of the agricultural ingredients they source or sell via calculation of an 'Acre Footprint',
 - Commit to advancing regenerative transition on acreage equivalent to the Acre Footprint via a participant commitment plan, including by meeting minimum thresholds and milestones, and
 - **Support** Farmer actions on the ground in line with these commitments, including by contributing to SCI's Farm Transition Fund, sourcing, or equivalent methods.





4.4 Core Elements

The Verification Program is based on the following core elements:

Commitments & Plans - Farmers commit to transitioning Enrolled Acres to Regenerative Management through the development, implementation and reporting on progress against Field Plans.

Measurement of Key Outcomes - Farmers execute the required combinations of Field and lab soil tests, providing practical and useful information for Farmers' Field Plans and decisions.

Reporting and Analysis - In addition to Farm-specific insights and with Farmer permission, SCI and partners gather and analyze essential Verification Program data and testing results and translate these into aggregate insights for Farmers to inform their future transition plans.

Learning Communities - SCI aims to create learning communities of practices supported by measurement, analysis, practical field outcomes, and innovations.

Soil Health Outcomes and Indicators are measured and include desirable improvements in one or more areas as compared to the Farm's initial baseline, and are measured across the following:

- 1. Improvements in soil health
- 2. Increases in the diversity of action against the Pillars
- 3. Decreases in inputs and input costs
- 4. Decreases in tillage and soil compaction
- 5. Increases in crop rotations and plant and livestock diversity on the Farm
- 6. Farm progress (increases in profits, yield, etc.) as reported by the Farmer in the Farm's annual renewal.

Refer to section 5.4 Soil Health Outcomes and Indicators for further information.

Central to the Farm Standard is the SCI Regenerative Pillars.

The Pillars create Farm resilience by maximizing natural resources and minimizing external inputs while revitalizing Farms. The Pillars align with readily accepted soil health principles and market expectations. These Pillars are key to the Field Plans and continuous improvement. Farmers may address these Pillars in ways that best fit their Farm's context and needs.

Figure 1. Provides a list of the seven individual pillars that encompass SCI's Regenerative Pillars.





Figure 1. SCI Regenerative Pillars



P1. Minimize Soil Disturbance

- P2. Living Roots in the Ground Year Round
- P3. Keeping Year Round Soil Coverage



P4. Maximizing Diversity Above and Below Ground



P5. Reducing Synthetic Inputs

P6. Continuous Learning

P7. Appropriate Integration of Livestock

5. Farm Standard

This section of the document covers the Farm Standard which outlines the specific and detailed requirements that participant farmers must meet (as verified by a third-party verifier), in order to achieve and maintain verification status within the Verification Program.

5.1 Enrollment

Participation in the Verification Program is open to any Farmer with eligible Acres as defined in Section 5.2 Eligibility and includes conventional, non-GMO, and organic farming systems. Once Enrollment is complete, the Acres will be considered as Enrolled Acres and Farmers as Enrolled Farmers.

5.2 Eligibility

5.2.1 Acre Eligibility

All Acres Enrolled in the Verification Program shall have a reasonable assurance that deforestation or native grassland conversion has not occurred on the Enrolled Acres within the past 20 years either via formal attestation through an affidavit process, certification, reference to satellite imagery, or land use change database.

5.2.2 Legal Compliance

The Farmer has knowledge of and complies with all applicable international, national and local laws and regulations and has legal rights either by ownership or contractual agreement to Farm the Enrolled Acres.

5.3 Acre Enrollment

Enrolled Acres shall be organized into Fields. SCI does not require that Farmers set a limit to the size of a Field for the purposes of creating a soil sampling zone.





5.3.1 Enrollment Requirements

All forms and supporting documents discussed in the Farm Standard are available for all Enrolled Farmers.

- **5.3.1.a**. For a Farmer to be considered Enrolled in the Verification Program, all the following forms and documentation shall be submitted:
 - **5.3.1.a.i** *Farm Intake Form* shall be submitted within one month of receiving the official invitation to enroll.
 - **5.3.1.a.ii** Provide information about the Farm's current management practices and crop rotations.
 - **5.3.1.a.iii** Provide information on any past and current Regenerative Management for the Farm.
 - **5.3.1.a.iv** Geospatial maps (shapefiles, KML, KMZ) of the Fields.
 - 5.3.1.a.v Field Enrollment Form
 - **5.3.1.a.vi** Baseline Soil Test Results: Soil testing, which includes Field and lab testing. See Section 5.5 Soil Testing Requirements for additional information.
 - **5.3.1.a.vii** Farm Commitment Form
 - **5.3.1.a.viii** *Field Plan(s):* See Section 5.6 Field Plans for additional information.
 - **5.3.1.a.ix** Inventory of synthetic fertilizer and pesticide application rates and water usage if applicable.

Information gathered will be used to track and trend Soil Health Outcomes and Indicators discussed in Section 5.4 Soil Health Outcomes and Indicators.

Guidance Enrollment Overview Enrollment consists of seven key steps, as outlined in this section. Step One: Program Interest • The Farmer completes the Program Interest Form • SCI sends an email that serves an official invitation to enroll. Step Two: Orientation • The Farmer participates in an orientation meeting with an SCI representative.





- The Farmer completes the Farm Intake Form.
- Farmer submits all necessary supporting files, including geospatial map of Fields.

Step Three: Field Enrollment

- The Farmer decides which Acres to commit to the Verification Program and at their discretion, meets with an approved agronomic consultant.
- Field Map(s) and a Soil Sampling Map are created for the Farmer.
- The Farmer completes the *Field Enrollment Form*.

Step Four: Baseline Evaluation

- The Farmer conducts all required baseline soil sampling utilizing the Soil Sampling Map and completes the *Soil Submittal Form* and *Soil Testing Documentation Form*, which will be shared as a packet for Field execution. More information can be found in Section 5.5 Soil Testing Requirements
- The Farmer submits information and documentation for water usage, synthetic fertilizer, and pesticide application rates.

Step Five: Farm Commitment and Field Plans

- The Farmer reviews soil test results, and at their discretion, meets with an approved agronomic consultant and SCI's Farm Program Specialist.
- The Farmer completes the Farm Commitment Form and Field Plan(s)

Refer to Section 5.6 Field Plans for additional information.

Step Six: Field Plan Implementation and Evidence Gathering

- Farmer begins to implement the Field Plan(s).
- Farmer gathers Evidence for verification during the implementation phase.
- Evidence is then submitted using the Field Evidence Form.

Examples of proof of action against Action Elements and commitments may include but are not limited to the following: time and date-stamped Field photos and videos, tractor data, receipts, other testing and certifications, other thirdparty verification program results and inspections, NRCS Conservation Contract completion and inspection, third-party agronomist affidavit, seed purchases, etc.

Refer to SCI Evidence Guidance for additional instruction.

Step Seven: Verification

- Forms, Evidence, and relevant data are shared with the third-party verification body.
- The verification body reviews the verification packet for Farm Standard conformance, and results are shared with SCI and the Farmer.

Refer to Section 6 Verification for additional information.





5.4 Soil Health Outcomes and Indicators

Indicators have been selected to address the following five key areas:

- Scientific rigor, validity, and acceptance
- Time and cost-effectiveness
- Provide useful data
- Measurable Soil Health Outcomes and Indicators that align with market expectations
- Allows for future growth and scalability

Given the variability and uncertainty of specific Farm outcomes, the Verification Program requires progress over a Farm's baseline evaluation in three key areas:

- Soil health testing that includes Field and lab tests.
- Reduction of synthetic inputs
- Continuous learning

Indicators for continuous improvement are detailed in Table 1, which include the Pillars each Indicator addresses, the temporal frequency of the data, and the trend over baseline anticipated with Regenerative Management.

Table 1: Indicators for Continuous Improvement			
Indicators	Pillar(s) addressed	Time	Trend over baseline
Haney - Soil Health Score, WEOC, WEON, %MAC, OM, Organic C:N ratio, Soil Respiration CO2-C	1-5, 7	Baseline then every 3 years	Increase
Total Organic Carbon	1-5, 7	Baseline then every 3 years	Increase
PLFA - microbial biomass, fungal to bacterial ratio	1-5, 7	Baseline then every 3 years	Increase
Water Infiltration (NRCS)	1-7	Annual	Increase
Worm Count Test	1-7	Annual	Increase
Pesticide application rates	4, 5	3-year calculation, rolling average	Decrease
Synthetic fertilizer application rates	4, 5	3-year calculation, rolling average	Decrease
Water Usage	1-5, 7	3-year calculation, rolling average	Decrease
Continuous Learning*	6	Annual	Credit allocations
Soil Health Visual Evaluations**			
 Visual Evaluation of Soil Structure 	1-7	Annual	Execution
Slake Test			
Penetrometer Compaction			

*See Section 5.4.2 Continuous Learning for additional information.

**Farmers need to execute one of the tests listed for Verification refer to Section 5.5 Soil Testing Requirements for additional information.





5.4.1 Indicators for Continuous Improvement Requirements

5.4.1.a Farmers shall provide the data and information and perform the necessary soil testing to quantify the Indicators in Table 1.

5.4.2 Pillar 6 Continuous Learning

To create clear parameters for Pillar 6, Continuous Learning, we have designed a simple credit system to document annual learning participation. Farmers shall participate and provide Evidence of learning credits annually that meet the following conditions:

- **5.4.2.a** Farmers with an annual gross revenue of \$150,000 or more shall participate in 24 continuous learning credits a year, with at least 8 of those credits allotted to on-Farm research. Table 2 provides Guidance on credit allocations.
- **5.4.2.b** Farmers operating small holdings, or beginning Farms, with an annual gross revenue of less than \$150,000 shall, at minimum, participate in 16 continuous learning credits a year. Table 2 provides Guidance on credit allocations.

Learning type	Credit allocation
In-person classes	1 credit per hour
Relevant agricultural or regenerative webinars	1 credit per event
Participation in SCI developed short-form online content, including but not limited to webinars, agronomic consultations, group meetings	2 credits per event
Mentee participation in SCI's mentoring program	2 credits per mentoring session
Participation in SCI developed long-form content, including but not limited to in-person meetings, online content longer than 3 hours, regional learning networks, etc.	3 credits per event
On-Farm research and development, including but limited to test strips/Fields, on- Farm flora and fauna identification, low-impact ag tech solutions, etc.	4 credits per test case

Table 2: Continuous Learning Credit Allocations

Questions regarding a learning opportunity and its applicability to Pillar 6 can be reviewed and approved by SCI.





5.4.2.c Mentoring Program

The mentoring program is embedded in Pillar 6 Continuous Learning and it is intended to partner Enrolled Farmers further in their regenerative journey with Enrolled Farmers who are taking their first steps as means of support and community building.

- **5.4.2.c.i** Mentees are Enrolled Farmers that are awaiting verification, or in Verification Levels I or II.
- **5.4.2.c.ii** Mentor roles are open to Enrolled Farmers meeting all the requirements of the Verification III and IV Levels. Farmers participating as mentors in the program will have their continuous learning credits waived if they meet the following requirements:
 - **5.4.2.c.ii.a** Conduct at least six mentoring sessions with their assigned mentee per year and,
 - **5.4.2.c.ii.b** Participate in at least six SCI Office Hours meetings per year.
- **5.4.2.c.iii** Farmers may be matched by region, production type, or production methods.

For more information on Verification Levels, refer to Section 6 Verification.

5.5 Soil Testing Requirements

The frequency and method of soil testing required for the purposes of Verification may differ from what is needed to make Farm management decisions. Farms are encouraged to test and make observations for management purposes beyond what the Verification Program requires, if desirable for the Farm.

For a full overview of the sampling methodology, and sampling directions, refer to SCI's Soil Testing Methodology.

5.5.1 General Requirements

- 5.5.1.a All soil sampling shall comply with SCI's Soil Testing Methodology.
- 5.5.1.b Farmers shall comply with the entirety of Section 5.5.2 Required Soil Testing.
- **5.5.1.c** All soil testing shall be conducted at designated geolocated positions.
- **5.5.1.d** All soil testing shall be completed within 30 days before or after the original baseline testing date so long as the day has similar climatic conditions. Exceptions may be granted for farmers unable to complete soil testing within the above parameters (e.g., weather-related events), with written approval by SCI.





Guidance

Soil Testing: The original baseline testing date was March 28th on a sunny 70degree day. The next annual or triennial testing cannot be completed earlier than February 28th or after April 28th and should be completed on a sunny day within five degrees of the temperature recorded on the baseline testing date

- **5.5.1.e** Soil sampling for lab soil testing may be conducted by a third party at the Farmer's discretion. It is the Farmer's responsibility to ensure soil sampling completed on their behalf complies with the Farm Standard.
- **5.5.1.f** Required lab tests shall be taken every three years after the initial baseline.
- **5.5.1.g** Field Tests shall be conducted annually. Results shall be documented on the approved *Soil Testing Documentation Form* and shared with SCI within 14 business days of testing completion.
- **5.5.1.h** Farmers shall complete all Field Tests. These tests shall be executed simultaneously as the sampling for lab verification except for the worm count test, which may be executed the following fall or spring season, whichever comes first after the baseline soil testing.
- **5.5.1.i** All soil samples shall be taken by a soil probe 5/8 inch in diameter or greater.
- 5.5.1.j An Approved Laboratory shall conduct lab tests.
- **5.5.1.k** All soil sampling shall be executed before tillage operations to ensure accurate results and sampling depth. In cases where an undue hardship is created, exceptions may be granted for farmers with tillage plans who are unable to complete soil sampling prior to tillage, with written approval by SCI.

5.5.2 Required Soil Testing

5.5.2.a Farmers shall comply with the entirety of Table 3, which provides an overview of each soil test required.





Table 3: Required Soil Testing				
Indicator	Measurement	Field Test	Lab Test	Frequency
Soil Carbon	Amount of carbon stored in the soil organic matter	N/A	Total Organic Carbon Dry Combustion	Baseline then every 3 years
Soil Health	Soil nutrients available to soil microbes	N/A	Haney Soil Health Test	Baseline then every 3 years
Microbial Activity	Soil community structure and abundance	Underwear Decomposition (smallholder Farms only where PLFA is not available)	PLFA	Baseline then every 3 years
Soil Organic Matter (SOM)	Organic matter component of soil	Visual Evaluation of Soil Structure (VESS)*	SOM (%LOI); included in Haney (above)	Field: Annual Lab: Baseline then every 3 years
Hardness/Compaction	Indicator of soil structure	Penetrometer*	N/A	Annual
Water Infiltration Rate	Indicator of water capture	NRCS Infiltration	N/A	Annual
Aggregate Stability	Indicator of soil structure	Slaking Test* VESS*	N/A	Annual
Worm Count	Indicator of biological life in the soil	Worm Count Test	N/A	Annual

*Farmers need to execute one of the tests listed for Verification.

5.5.3 Lab Tests

- **5.5.3.a** Data trends from Lab Tests should generally increase overtime. Exceptions may be granted for Farmers that show progress and initiative, yet the trend data is not trending positively.
- **5.5.3.b** Organic C:N ratios defined as poor or marginal should trend toward good and ideal ratios over time.





<u>Total Organic Carbon (TOC)</u>: Total organic carbon measures the amount of carbon stored in soil organic matter.

<u>Haney Soil Health Test</u>: The Haney soil health test integrates chemical and biological measurements to assess the soil nutrient status, microbial biomass and aspects of the microbial habitat to determine overall soil health.

- Soil Health Score
- Water Extractable Organic Carbon
- Water Extractable Nitrogen
- Organic Matter
- Organic C:N Ratio
- Soil Respiration CO2-C

Review the <u>Haney Test Interpretation Guide</u> to learn more about the Soil Health Score and other Haney Soil Health Test Indicators.

<u>Phospholipid Fatty Acids (PLFA)</u>: Using known PLFA biomarkers, this test represents living soil microbial biomass and identifies the various functional groups present or absent in the soil.

- Total Living Microbial Biomass
- Arbuscular Mycorrhizal Fungi (AMF) Biomass
- Percentage of AMF in Total Biomass

5.5.4 Approved Laboratory

Regen Ag Lab, LLC 31740 NE-10 Pleasanton, NE 68866

5.5.5 Required Field Tests

- **5.5.5.a** Data trends from Field Tests should generally increase overtime. Exceptions may be granted for Farmers that show progress and initiative, yet the trend data is not trending positively.
- **5.5.5.b** Farmers shall select one of the Soil Health Visual Evaluation Tests. The test selected shall be repeated and performed annually. Data trends from these tests will be collected and tracked. Verification for the Soil Health Visual Evaluations rests on the execution of the selected tests and not the data trends.

NRCS Water Infiltration: The infiltration rate measures how fast water enters the soil.

Worm Count Test. Provides an Indicator of the amount of organic matter and fertility of the soil.





Soil Health Visual Evaluations:

- <u>Visual Evaluation of Soil Structure (VESS)</u>: Provides a straightforward framework for quantitatively scoring soil structure quality.
- <u>Slake Test:</u> Demonstrates the stability of soil aggregates when placed in water.
- <u>Penetrometer Compaction:</u> A soil penetrometer is used to test the compaction of the soil.

5.5.6 Soil Health Monitoring Points (SHMP)

Soil Health Monitoring Points are representative areas used to understand how Farm management changes are progressing soil and ecosystem health over time.

The number of Enrolled Acres determines the number of SHMPs. SCI has determined Acre ranges using a formula developed to ensure statistical relevance to the number of soil cores needed and the amount of soil volume needed to run the required lab tests.

- SCI Formula: Square root of the Enrolled Acres plus one rounded to the nearest whole
- Each soil sample shall have at minimum 12 soil cores to meet soil volume requirements of the Approved Laboratory.
- **5.5.6.a** SHMPs are geolocated, placed in the top two predominant soil types, and located in an area the farmer designates as having average production yields.
- **5.5.6.b** When an odd number of SHMPs are required, the allocation of SHMP shall defer to the predominant soil type so that it shall have an odd number of SHMPs, and the secondary soil type shall have an even number.
- **5.5.6.c** Refer to Table 4 Soil Health Monitoring Points for SHMP requirements. For Farms larger than 9,000 Acres, contact SCI for details.

Table 4: Soil Health Monitoring Points					
Acre Ranges	SHMP Required	Predominant Soil Type Allocation	Secondary Soil Type Allocation		
550 or less	2	1	1		
> 550 - 1200	3	2	1		
> 1200 - 2200	4	2	2		
> 2200 - 3500	5	3	2		
> 3500 - 5100	6	3	3		
> 5100 - 6900	7	4	3		
> 6900 - 9000	8	4	4		
> 9000	Contact SCI				





5.5.7 Farm Transition Support

Farm Transition Support is an optional testing program that Farmers may include in their soil testing protocol at any time they deem helpful for their regenerative transition. Farmers may also remove this program at any time they choose. Sampling parameters for this program may be found in *SCI's Soil Testing Methodology*.

5.6 Field Plans

The Field Plan outline changes or additions of Farm management aimed at producing Farm regeneration and Soil Health Outcomes on Enrolled Acres.

5.6.1 Field Plan Commitments

- **5.6.1.a** The Field Plan shall address at least four of the Pillars in addition to Pillar 6, continuous learning, which is mandatory.
- **5.6.1.b** The Farmer shall develop and implement a Field Plan that outlines Action Elements on 100% of Enrolled Acres in the SCI Program.
- **5.6.1.c** Field Plans shall include the rationale for inaction against any Pillar that is prohibited or where action would pose significant danger or hardship.

5.6.2 Additional Requirements

- **5.6.2.a** There may be times when supporting documentation, such as land records, are required to show that the Enrolled Acres are under the control of the Farmer.
- **5.6.2.b** Farmers shall submit their Farm Commitment Form and Field Plan(s) within six months of submitting the Farm Intake Form.
- **5.6.2.c** The Field Plan(s) at Enrollment shall address Year 1 through Year 3.
- **5.6.2.d** Farmers shall submit their Year 4-6 Field Plans at the same time as submitting their Year 3 Soil Testing.
- **5.6.2.e** Farmers shall submit their Year 7-9 Field Plan at the same time as submitting their Year 6 Soil Testing.
- **5.6.2.f** Farmers shall implement the Action Elements and commitments outlined in the Field Plan and provide proof of implementation in the form of Evidence.
- **5.6.2.g** Evidence of Field Plan implementation shall be submitted yearly and address the Commitments made for that planned year.





5.6.3 Special Considerations

Field Plans may be revised due to extreme climate and weather variability or other factors that negatively impact the Farmer's ability to implement the plan. Alterations to the Field Plan may require changes to the Action Elements and commitments.

5.6.3.a All revisions shall be documented in the *Field Plan Addendum Form* and submitted to and approved by SCI.

6. Verification

Soil Carbon Initiative's Soil and Climate Health Initiative Commitment & Verification Program is a third-party verified program. The approved third-party verifier as of the publication date of this document is SCS Global Services, an ISO 17065-accredited certification body.

6.1 General Requirements

- **6.1.1** The Field Plan outlines Action Elements and commitments to address the Pillar requirements on 100% of Enrolled Acres in the Verification Program.
- **6.1.2** A Farmer may advance as quickly as fits their regenerative journey and farming context if they meet the requirements of the next Verification Level.
- **6.1.3** Lab soil testing and baseline synthetic fertilizer and pesticide use calculations will not prevent a Farmer from advancing Verification Levels so long as the Farmer is within the first three years of Program engagement.
- **6.1.4** A Farmer may enter at the Verification Level that meets their experience if they have the required documentation and Evidence to meet needed Verification Level requirements. Refer to Section 6.3 Equivalency Pathways for further information.
- **6.1.5** Once a Farmer has entered a Verification Level, they shall progress to the next Verification Level by the third year. Failure to advance to the next Verification Level may result in removal from the Verification Program. Exceptions may be granted for Farmers that show progress and initiative, yet the data is not trending positively. Refer to Section 6.5.4 Non-Conformance and Corrective Action Plans for further details.
- **6.1.6** Enrollment, writing of the Farm Commitment Form and Field Plan(s), executing baseline soil testing, and participating in the soil testing interpretative support meeting will serve to meet the continuous learning requirements in the first year. Renewal requires Evidence of the required continuous learning credits.





6.2 Scope of Verification and Level Requirements

6.2.1 Level I

- 6.2.1.a The Field Plan shall address at least four of the following Pillars:
 - P1. Minimizing Soil Disturbance
 - P2. Living Roots in the Ground Year Round
 - P3. Keeping Year Round Soil Coverage
 - P4. Maximizing Diversity Above and Below Ground
 - P7. Appropriate Integration of Livestock
- 6.2.1.b Where applicable, Action Elements may address up to two Pillars.
- **6.2.1.c** All required baseline soil testing has been completed.
- **6.2.1.d** Documentation for calculating synthetic fertilizer and pesticide usage has been submitted. SCI will use this data to calculate a 3-year average baseline.
- **6.2.1.e** Meets the yearly continuous learning requirements, and Evidence has been submitted that meets Section 5.4.2 Continuous Learning Parameters.
- **6.2.1.f** Evidence of Field Plan implementation has been submitted and reviewed by the Third-Party Verifier and is found in conformance with the Farm Standard.

6.2.2 Level II

- 6.2.2.a The Field Plan shall address at least four of the following Pillars:
 - P1. Minimizing Soil Disturbance
 - P2. Living Roots in the Ground Year Round
 - P3. Keeping Year Round Soil Coverage
 - P4. Maximizing Diversity Above and Below Ground
 - P7. Appropriate Integration of Livestock
- **6.2.2.b** The Field Plan shows a deepening of Action Elements for one of the previously selected Pillars.

Guidance

An example of a deepening of an Action Element would be transitioning from a single species cover crop to a multispecies cover crop to address Pillar P2.

- **6.2.2.c** Where applicable, an Action Element may address up to two Pillars.
- **6.2.2.d** All required soil testing has been completed on schedule.





- **6.2.2.e** Soil tests show positive trends in key measures of soil health. Recognizing soil health is impacted by a large number of variables, Farm-specific context is considered when verifying this outcome.
- **6.2.2.f** The 3-year rolling average of synthetic fertilizer and pesticide usage shows a decline over the baseline.
- **6.2.2.g** Meets the yearly continuous learning requirements, and Evidence has been submitted that meets Section 5.4.2 Continuous Learning Parameters.
- **6.2.2.h** Evidence of Field Plan implementation has been submitted and reviewed by the Third-party Verifier and is found in conformance with the Farm Standard.

6.2.3 Level III

- **6.2.3.a** The Field Plan shall address at least four of the following Pillars:
 - P1. Minimizing Soil Disturbance
 - P2. Living Roots in the Ground Year Round
 - P3. Keeping Year Round Soil Coverage
 - P4. Maximizing Diversity Above and Below Ground
 - P7. Appropriate Integration of Livestock
- **6.2.3.b** The Field Plan shows a deepening of Action Elements for two previously selected Pillars.
- **6.2.3.c** Two Pillars may be addressed by the same Action Element only once.
- **6.2.3.d** All required soil testing has been completed on schedule.
- **6.2.3.e** Soil tests show positive trends in key measures of soil health. Recognizing soil health is impacted by a large number of variables, Farm-specific context is considered when verifying this outcome.
- **6.2.3.f** The 3-year rolling average of synthetic fertilizer and pesticide usage shows a decline over the baseline.
- **6.2.3.g** Requires the use of non-pesticide-treated seed. In cases where an undue hardship is created, exceptions may be granted with written approval by SCI.
- **6.2.3.h** Meets the yearly continuous learning requirements, and Evidence has been submitted that meets Section 5.4.2 Continuous Learning Parameters.
- **6.2.3.i** Evidence of Field Plan implementation has been submitted and reviewed by the Third-party Verifier and is found in conformance with the Farm Standard.





6.2.4 Level IV

6.2.4.a The Field Plan shall address at least four of the following Pillars:

- P1. Minimizing Soil Disturbance
- P2. Living Roots in the Ground Year Round
- P3. Keeping Year Round Soil Coverage
- P4. Maximizing Diversity Above and Below Ground
- P7. Appropriate Integration of Livestock
- **6.2.4.b** The Field Plan shows a deepening of Action Elements for three previously selected Pillars.
- **6.2.4.c** A separate Action Element shall address each Pillar.
- **6.2.4.d** All required soil testing has been completed on schedule.
- **6.2.4.e** Soil tests show positive trends in key measures of soil health. Recognizing soil health is impacted by a large number of variables, Farm-specific context is considered when verifying this outcome.
- **6.2.4.f** The 3-year rolling average of synthetic fertilizer and pesticide usage shows a decline over the baseline.
- **6.2.4.e** Requires the use of non-GMO and non-pesticide treated seed. In cases where an undue hardship is created, exceptions may be granted with written approval by SCI.
- **6.2.4.f** Meets the yearly continuous learning requirements, and Evidence has been submitted that meets Section 5.4.2 Continuous Learning Parameters.
- **6.2.4.g** Evidence of Field Plan implementation has been submitted and reviewed by the Third-party Verifier and is found in conformance with the Farm Standard.

6.3 Equivalency Pathways

SCI is designed to recognize a Farmer's soil health journey, whether just starting or an advanced practitioner. Equivalency Pathways are available, which evaluate a Farm's past and current management of Enrolled Acres against the Farm Standard. With at least two years of proper Evidence, documentation, and equivalent soil testing, Farmers may receive credit for the regenerative transition they have already undertaken. This pathway maintains the rigor of the Farm Standard and third-party verification while honoring early adopter Farmers. One of the goals of this pathway is to minimize the additional procedural burden on participating Farmers who have any or all of the following:

- Existing third-party verification programs (e.g., organic)
- Proof of participation in NRCS or other conservation programs
- Current farm plans demonstrate Action Elements that address the Pillars.
- Evidence of Implementation of current farm plans
- Equivalent soil testing
- Outcomes tracking and reporting





In situations where a Farmer has the required documentation and meets the criterion of Levels II, III, or IV within the first year, SCI will allow for Verification at those Levels with the following conditions:

- **6.3.1** All required baseline soil testing has been completed.
- **6.3.2** Documentation for calculating synthetic fertilizers and pesticide usage and water usage if applicable, has been submitted. SCI will use this data to calculate a 3-year average baseline. Once a 3-year average has been calculated, the trends show a decline over the baseline.
- 6.3.3 Completion of an on-site audit.

6.4 On-site Farm Audit Requirements

The Verification Program is designed to support Farmers in transitioning Acres under Regenerative Management while providing incentives to Farmers and assurance to stakeholders that progress is being made. To support assurance that the Farmer has complied with Farm Standard requirements, SCI relies on both remote audits by a third-party verifier; and periodic on-site Farm audits by a third-party verifier and other approved auditors under the following circumstances:

6.4.1 On-site Audits for Initial Verification: An on-site audit is required for a Farm's initial verification in order for the Farm and its downstream products to use the Label in the identity-preserved ingredient and/or product pathways.

Refer to the SCI Company Commitment & Verification Standard for additional information.

- **6.4.2 On-going On-site Audits:** On-site audits are required every three years to maintain verification status.
- **6.4.3 Randomized On-site Audits:** SCI will randomly select 1% of participating Farms to undergo an on-site Farm audit by an accredited third-party auditor.
- **6.4.4** Third-party Verifier Triggered On-site Audit: At the discretion of the third-party verifier and SCI, an on-site audit may be required based on their risk analysis. This on-site audit would be an escalation step in an investigation into the reporting/Evidence provided by a Farm to SCI.
- **6.4.5 Scope of On-site Audits:** The scope of the on-site audit shall include, but is not limited to, a walk-through of the facility and Fields to verify the Evidence of progress made against the Field Plan(s) reported to SCI as part of the annual renewal process.
- 6.4.6 Auditors: Third-party Auditors and other approved auditors will conduct On-site Audits.





6.5 Non-Conformance and Corrective Action Plans

- **6.5.1** Full compliance with the Farm Standard shall be achieved before initial verification.
- **6.5.2** Non-conformities discovered during the renewal process shall be addressed in order to maintain verification.
- **6.5.3** Corrective and preventive actions shall be completed in a timely manner.
- **6.5.4** In certain circumstances, corrective action plans may need additional agronomy consulting to thoroughly understand why a Soil Health Outcome or Indicator may not be trending in a positive direction over the Farm's initial baseline. SCI reserves the right to use SCI's programs ecosystem to inform and address the non-conformance if requested by the Farmer.
- **6.5.5** Repeated non-conformance with the Farm Standard may be cause for removal from the Verification Program.

6.6 Labeling and Claims

- **6.6.1** Claims may only be made on the Enrolled Acres and the products grown on those Acres.
- **6.6.2** The Scope of Verification for the eligible products and/or ingredients will be outlined in the SCI Certificate of Verification.
- **6.6.3** All Farmers wishing to use the Label or make any related public claims about their participation in the program shall have signed and submitted an *SCI Participant Agreement*.
- **6.6.4** The Farmer shall have achieved and maintain their Verified Status and be in good standing with all program requirements in order to use the Label, including an initial on-site audit to verify the Evidence of Field Plan implementation and ongoing on-site audits at least every three years.
- **6.6.5** Farmers shall follow the *SCI Trademark Usage Guide* when making any SCI programrelated general claims, product, or ingredient claims, and/or using the Label.
- **6.6.6** All Label usage and claims shall be reviewed and approved against compliance with the *SCI Trademark Usage Guide*.





6.7 Traceability

- **6.7.1** The Farmer shall ensure that their Traceability records, including SCI Certificates of Verification, are accessible to the approved certification body upon request.
- **6.7.2** The Farmer shall ensure traceability of product during all steps of production and postharvest handling, processing, and storage, up to the point where the Farmer no longer owns the product, or the point where activities are no longer under the Farmer management.

7. Annual Renewal

- **7.1.1** Farmers shall renew their Enrollment within 12 months of their original Enrollment or, where applicable, their last renewal to maintain Enrollment and/or Verification Level and, if requirements are met, Label use.
- **7.1.2** Annual Renewal includes but is not limited to: submitting required documentation and Evidence submission of Field Plan implementation to meet Verification Level requirements and paying all required program fees.
- **7.1.3** Subsequent Annual Renewals shall be completed within 12 months of the previous Annual Renewal.
- **7.1.4** Annual Renewals will be completed in reference to the latest version of the Farm Standard.

8. Data Privacy

- **8.1.1 Data Ownership**: All data generated for the Verification Program testing and compliance is owned by the Farmer.
- **8.1.2 Data Collection:** Farm data may be shared with SCI and within SCI's programs ecosystem including affiliates and other program partners (e.g., testing labs, third-party verifiers, auditors, program partners) to ensure compliance with Verification Program requirements.
- **8.1.3 Data Privacy:** SCI may not disclose, sell, or otherwise share a Farm's unique data, including the results of particular testing protocols without the written and express permission of the Farm owner / authorized individual.
- **8.1.4** Aggregate Data Analysis: SCI may aggregate data for reporting and research purposes across SCI's programs ecosystem in ways that do not allow for individual Farms to be identified.

