SOIL CARBON INITIATIVE
A World Changing Soil Health Commitment & Verification Program
An initiative of the Soil & Climate Alliance
KEY ELEMENTS
VISION

Everyone who touches soil holds the key to advancing a better future for the planet and all its peoples.

The Soil Carbon Initiative (SCI) is a commitment and verification program that empowers and incentivizes farmers and the food supply chain to transition acres to regenerative management to maximize regenerative outcomes - soil health, biodiversity, water quality, climate resiliency and boost farm and rural community economics.
The Soil Carbon Initiative (SCI) is the first **independently verified, outcomes-based, regenerative agriculture program open to any farmer or food company**

### The Problem

- Companies want to support regenerative ag, but verifying progress is challenging
  - Farmers face challenges transitioning
  - The few existing 3rd party regen programs exclude certain farmers & production systems
  - Many consumers, farmers and companies are asking for a definition & verification for regen ag so it doesn’t become confused, ‘greenwashed’ or ‘greenwished’

### The Solution

- There is a need for a third-party program that
  - Is open to any farm and food company
  - Verifies outcomes and does not dictate practices
  - Supports farmers in the transition and focuses on transition at scale
  - Includes but does not require segregated, identity-preserved supply chains

### How SCI Addresses the Gap

- SCI is an outcomes-based commitment and verification program
  - It is inclusive of all farmers & production systems and focused on scaling acres under transition
  - It has been developed with farmers & soil scientists to work for farmers and support transition
  - It requires commitments to transition acres to regenerative management, on-farm measurements, and third-party verification of outcomes
The Soil Carbon Initiative draws from a network of leaders
The Soil Carbon Initiative (SCI) has broad supply chain support

• Created in partnership with the farmer, corporate, investor, and academic members of Green America’s Soil & Climate Alliance

• SCI is a program of Green America, a nonprofit marketplace solutions organization.

• Initial development guided by the SCI Soil Committee of farmers and soil scientists

• Phase I Design Team: Ben & Jerry’s, Danone, Green America, MegaFood, NSF, The Carbon Underground, True Grace

• Formal public comment period completed

• Collaborators include:
  ◦ Over 150 farmers, companies, suppliers, retailers, scientists, NGOs, and investors
  ◦ Large & small; US-based and global; all farm production systems (conventional, organic, non-GMO, biodynamic)
SCI DESIGN CRITERIA
CREATING IMPACT AT SCALE

• Involve the entire agriculture spectrum
  ◦ Conventional to non-GMO to organic and biodynamic
  ◦ Farms, companies, and retailers

• Measure outcomes, not dictate practices

• Achieve verified and meaningful results

• Shape as a system-level process standard, I-SEAL compliant (e.g., Marine Stewardship Council, B-Corp)

• Ensure that it works for farmers agronomically & economically

• Inter-operable with other standards, programs, and platforms – never exclusive

• Adapt emerging knowledge, innovation, & new testing technologies

• Require ongoing improvement
SOIL CARBON INITIATIVE: KEY ELEMENTS

- Commitments
- Measurement
- Independent Verification
- Farmer Funding
- Farmer Technical Guidance
# How SCI Works

<table>
<thead>
<tr>
<th><strong>FARMERS &amp; RANCHERS</strong></th>
<th><strong>COMPANIES &amp; BRANDS</strong></th>
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<tbody>
<tr>
<td><strong>Enroll &amp; Commit</strong></td>
<td>Acre targets, baseline soil health tests, farm plan</td>
</tr>
<tr>
<td><strong>Complete Assessment</strong></td>
<td>Current practices, goals for farms</td>
</tr>
<tr>
<td><strong>Submit Baseline</strong></td>
<td>In-field and in-lab tests of current status</td>
</tr>
<tr>
<td><strong>Make Plan</strong></td>
<td>Farm plan to reach goals, acre targets</td>
</tr>
<tr>
<td><strong>Measure Progress</strong></td>
<td>Outcomes based (see Farm Pathway)</td>
</tr>
<tr>
<td><strong>Farm Fund</strong></td>
<td>Access SCI Farm Fund for transition, ongoing payments</td>
</tr>
<tr>
<td><strong>Verification</strong></td>
<td>Complete annual verification, submit evidence of progress</td>
</tr>
<tr>
<td><strong>Earn Label</strong></td>
<td>Attract new customers, consumers, investors</td>
</tr>
<tr>
<td></td>
<td>• Use on website, products, social media</td>
</tr>
<tr>
<td></td>
<td>• Get listed on SCI National</td>
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</tbody>
</table>
SCI FARM
PATHWAY
FARMS: PILOT SCOPE & ELIGIBILITY

SCOPE
- Determine how many acres you want to enroll to start
- Conduct baseline tests
- Make commitments & a farm plan for:
  - Your next soil health steps for the pilot
  - Implementing SCI across your farm in future years
- Provide feedback & advice to SCI Team:
  - What works?
  - What needs improvement?
- Timeline: 12 – 18 months

Looking ahead: Continue past the pilots & go to market with SCI!

ELIGIBILITY
- U.S. based only for 2022 pilots
- Feed grain and/or hay
- Food grade wheat
- Specialty crops – tomatoes, almonds, olives, citrus,
- Peas, pluses, legumes
- Crops for the supplement & vitamin industry
- Crops in rotations with the above

Costs covered for soil health tests, plans, verification + $10 - $15 / enrolled acre
### FARM BENEFITS: SCI PILOTS

| INFORMATION | • Gain access to world’s best soil health tests & get real data on soil health progress
|            | • Get interpretive guidance about best steps, based on the data & farm goals |
| FARM PROFITABILITY | • Improve soil health to help reduce input costs, diversify revenue, lower weather risk and increase profitability |
| NETWORK | • Become part of SCI Farmer Network to exchange ideas with other farmers, if desired |
| MARKET | • Get ready for the growing market of companies, consumers & investors looking to connect with farmers focusing on soil health |
| LABEL & VERIFICATION | • Earn the SCI label to verify your progress to companies & consumers
|            | • Get listed on the SCI Farm Registry |
| FINANCIAL BENEFITS: PILOTS | • Benefit from all costs covered for soil tests & consulting for SCI farm plans
|            | • Earn $10 - $15/enrolled acre |
| FINANCIAL BENEFITS: BEYOND THE PILOTS | • Benefit from no annual SCI fees as long as you are part of the SCI program
|            | • Earn first eligibility for the SCI Farm Fund & ongoing acre dividends (starts 2023) |
Step 1: ENROLL & COMMIT

Tell us about your current production, challenges and opportunities

Commit to make and implement a regenerative farm plan, measure outcomes, report on results

Commit to learn and support others on the journey

Access to Farmer Networks, Technical Guidance, and Regenerative Agriculture Support/Consulting
Step 2: ESTABLISH YOUR BASELINE

Soil Health & Soil Carbon

✓ In-field and In-lab tests
✓ Stable soils, rich in SOM, soil carbon, complex microbial communities, abundant, long lived root systems, capable of cycling water and nutrients

Progress Towards Elimination of Chemical Inputs

✓ Towards elimination of synthetic chemical pesticides, herbicides and fertilizers (organic not required)

Biodiversity of Soil, Plant & Animal Species

✓ Above and below ground biodiversity related to farm production
  • In development: Dominance of native species – i.e., native plants (in buffer zones) birds, butterflies, pollinators (Phase III)

Water Use & Water Quality

• Conservation of water use through improvement of water cycling, reduction of runoff that impairs water quality (Phase III)

Nutrition

• Healthy, vigorous, plants and animals that provide nutrient dense food for humans and animals on farm and off (Phase III)
✓ Required for SCI Pilot
<table>
<thead>
<tr>
<th>Test</th>
<th>Measurement</th>
<th>On-Farm Verification</th>
<th>Lab Verification</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil Carbon***</td>
<td>Dry combustion</td>
<td>N/A</td>
<td>Dry Combustion TOC/TC</td>
<td>BASELINE THEN EVERY 3 YEARS</td>
</tr>
<tr>
<td>Haney Soil Health Assessment</td>
<td>Soil nutrients available to soil microbes</td>
<td>N/A</td>
<td>Full panel, including next gen Haney Soil Test data*</td>
<td>ANNUAL; INCLUDES INTERPRETIVE GUIDANCE</td>
</tr>
<tr>
<td>Soil Organic Matter</td>
<td>Soil Organic Matter</td>
<td>Soil Color, soil smell</td>
<td>SOM (%LOI); included in Haney (above)</td>
<td>ANNUAL</td>
</tr>
<tr>
<td>Hardness/Compaction</td>
<td>Compaction</td>
<td>Penetrometer</td>
<td>N/A</td>
<td>ANNUAL</td>
</tr>
<tr>
<td>Water Infiltration</td>
<td>Water Holding Capacity</td>
<td>NRCS Infiltration Dual Head Infiltrometer</td>
<td>Pressure Plate</td>
<td>BASELINE IN LAB, THEN Every 3 Years; IN FIELD ANNUAL</td>
</tr>
<tr>
<td>Aggregate Stability</td>
<td>Soil aggregates</td>
<td>In field Slaking Test</td>
<td>ARS WET AGGREGATE TEST</td>
<td>EVERY 3 YEARS IN LAB; ANNUAL IN FIELD</td>
</tr>
<tr>
<td>Microbial Activity</td>
<td>Activity of microbial community</td>
<td>Decomposition Test</td>
<td>PLFA</td>
<td>EVERY 3 YEARS LAB, ANNUAL FARM/FIELD</td>
</tr>
<tr>
<td>Chemical and Synthetic Input, Fertilizer</td>
<td>Declining use towards elimination</td>
<td>Inventory &amp; Audit</td>
<td>Audit</td>
<td>ANNUAL</td>
</tr>
<tr>
<td>Biodiversity Field Farm Assessment (Insect, Birds, Pollinators etc.)</td>
<td>Increases in above ground diversity</td>
<td>Field &amp; Farm Counts; transects to line up with soil sampling</td>
<td>Phase III (post-pilot)</td>
<td></td>
</tr>
<tr>
<td>Nutrition</td>
<td>Nutrition Per Acre</td>
<td>In Process</td>
<td>Phase III (post-pilot)</td>
<td></td>
</tr>
</tbody>
</table>

*Next generation Haney Soil Test date include soil health progress measure along with more information on carbon, water and below-ground nutrient density and interpretative guidance and next steps for farmers – a game changer on metrics for both farms and companies.
Step 3: MAKE A PLAN

Plan includes actions for the 6 SCI Program Pillars over time

Farms select actions that are right for their farm and the pace of the implementation

Farms submit evidence of progress within each pillar annually

Timeline requirements for plan:
• 25% of farmed acres by Year 3
• 50% by year 6
• 75-100% of acres by years 7-10
SCI FARM PLAN: 6 KEY PILLARS

Minimizing soil disturbance

Living roots in the ground year round

Maximizing diversity above and below ground

Integrating livestock (where appropriate)

Reducing synthetic inputs (organic not required)

Learning / continuous improvement
Step 4: MEASURE, VERIFY & REPORT

- Soil Health Lab Tests
  - Baseline: Full SCI Soil Health Panel
  - [Post-pilot] Annual Haney Soil Health Test
  - [Post-pilot] Every 3-year Full SCI Soil Health Panel

- Report on Progress on Farm Plan Pillars

- Submit Evidence of Action and Progress Against Program Pillars

- Progress, Tests and Reporting Independently Verified by SCS Global Services

*Farmers always own their data, with permission given to SCI for verification & aggregate reporting. SCI never sells data.*
SCI COMPANY
PATHWAY
COMPANIES: PILOT SCOPE & ELIGIBILITY

SCOPE:
• Identify brand(s), product(s) or SKUs to start
• Calculate how many acres it takes to produce product(s) - SCI can help!
• Determine label focus:
  ◦ Front of pack: Requires traceability & 70% of ingredients from SCI farms
  ◦ Back of pack: Claims signal company/brand commitment (e.g., B-corp)
• Make acre commitments & company plan to:
  ◦ Engage & support farms in pilot
  ◦ Implement SCI across 75-100% of brand/company acres in future years
• Provide feedback & advice to SCI Team: What Works? Needs improvement?
• Timeline: 12 – 18 months

ELIGIBILITY:
• Food companies interested in 3rd party verified regenerative or soil health claims
• U.S. farm cooperatives & intermediaries with direct relationships with farms

Looking ahead: Continue past the pilots & go to market with your SCI label!
<table>
<thead>
<tr>
<th><strong>Use of Logo/Claims</strong></th>
<th>SCI logo on Front of Pack conveys verified regeneratively-grown ingredients in the product</th>
</tr>
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<tbody>
<tr>
<td><strong>Similar Programs</strong></td>
<td>Non-GMO Project Verified, Fair Trade Certified</td>
</tr>
<tr>
<td><strong>Requirements</strong></td>
<td>Enrollment, commitment and verified achievement of 70% of ingredients in the product produced on acres with SCI Farm Plans and Verified SCI Measurement</td>
</tr>
<tr>
<td><strong>Scope</strong></td>
<td>Completed at the SKU level</td>
</tr>
<tr>
<td><strong>Acre Commitment</strong></td>
<td>70% of SKU non-water ingredients</td>
</tr>
<tr>
<td><strong>Milestones</strong></td>
<td>Direct acres for 70% of ingredients must be enrolled in the program Farms must have completed their first-year cycle in the program or qualify as leaders</td>
</tr>
<tr>
<td><strong>Sourcing Type</strong></td>
<td>Direct: Direct or full traceable purchasing relationship with farms that are enrolled in SCI</td>
</tr>
<tr>
<td><strong>Chain of Custody</strong></td>
<td>Required for all steps in supply chain from farm to final manufacturer</td>
</tr>
<tr>
<td><strong>Verification</strong></td>
<td>Acres, progress towards commitments and chain of custody are 3\textsuperscript{rd} Party Verified</td>
</tr>
</tbody>
</table>
# SCI Acres – Back of Pack Logo

## Program Requirements
1. Enroll in and commit to program
2. Submit Company Plan information on Scope, Acre Commitment, Milestones, and Sourcing Type
3. Be matched to SCI-enrolled farm acres equivalent to Acre Commitment
4. Pay year 1 program fees

## Use of claims/logo
SCI Logo on back of pack and website claims convey commitment regenerating farm acres where outcomes are 3rd party verified

Example back of pack claim: “Supporting farms on their regenerative pathway”

## Similar Programs
1% for the Planet, B Corp

## Scope
Companies can commit at the company, brand or category/SKU level

## Acre Commitment
Based on scope, identify top 10 or 70% of ingredients by purchase volume and divide the purchase volume by the average crop yield per acre to calculate total acres (calculator tools and/or assistance by SCI team upon request)

- **Corporate**: acres for 10 largest ingredients for entire company, or 70% of non-water ingredients
- **Brand**: acres based on 10 largest ingredients for selected brand, or 70% of non-water ingredients
- **SKU(s)**: acres based on 10 largest ingredients in SKU(s), or 70% of non-water ingredients

## Milestones
- 25% of Acre Commitment by year 3-5
- 50%-75% of Acre Commitment within 5-7 years
- 75%-100% of Acre Commitment within 7-10 years

## Sourcing Types
Can be a mix of the following:
- **Direct**: Direct purchasing relationship with farms that enroll in SCI
- **Mass Balanced**: Purchases made via intermediary (e.g., processor, co-op), but enough of their farms enroll in SCI to equal volume purchased
- **“Acre Match”**: No visibility to farm level, can match with acres of any crop

## Chain of Custody
Not Required

## Verification
Review of whether the company is meeting Acre Commitment and Milestones
PILOT STEPS: COMPANIES

1. Identify: Products to include in the pilot
2. Determine: # of acres it takes to produce those products
3. Decide: Front or back of pack?
4. Identify: Farms to engage & support
5. Create: Scope Agreement with SCI Team
## COMPANY BENEFITS OF SCI PILOTS

### Farm Benefits, Guidance & Connections for Regenerative Journey

- Farm benefits for farmers in your supply chain
- Access to aggregated data about farm progress
- Learning for developing company plans for transitioning total acres to regenerative
- Access to regeneratively sourced ingredients
- Access to SCI company groups for exchange of ideas & SCI company consultants, if desired

### Label: Verification of Regenerative Claims – Market Expansion & Protection

- Use of label on websites, social media, front and/or back of pack
- Attracts new customers & consumers as market demand continues to shift to regenerative
- Assures consumers that company progress & commitments are authentic, not greenwashing or green wishing
- Recognition for regenerative progress & national visibility to customers & consumers
- Meet retailer requirements on regenerative/soil health claims

### Supply Chain Resilience & Security

- Greater climate, water, biodiversity, farm economic resilience
- Creates the ability to secure relationships with specific farmers, if desired

### Company Leadership Commitments

- Establishes leadership in regenerative agriculture & demonstrates commitment to farmers
- Boosts support for company climate, water, biodiversity, Sustainable Development Goals, B-Corp commitments
MEET
SCI PARTNERS
Exclusive Lab Partner for SCI

• Led by Lance Gunderson

• Dr. Rick Haney, Chief Scientific Officer

• Dedicated to “proper testing, scientific data and consultation to guide producers through their personal journey of regenerative agriculture, economic stability and land restoration.”

• During the SCI Pilot Regen Ag Lab will
  ◦ Provide soil sample analysis
  ◦ Support farmers in understanding results
  ◦ Support SCI to improve guidance to farms scaling their regenerative management over time

Thank you to Lance and Rick for your expertise and supporting the development and learning of SCI!
Exclusive Third-Party Verifier for SCI

• SCS Global Services is an international leader in third-party certification, validation, and verification for environmental, sustainability, and food safety and quality performance claims.

• During the SCI Pilot SCS Global Services will
  ◦ Verify farm plans and evidence against farm standard
  ◦ Support SCI team to finalize technical guidance for SCI 2023 full market launch

Thank you to Kevin Warner for your expertise, patience and support!
Exclusive Farm Consultants for SCI Pilots

- Led by Dr. Liz Haney and Russell Hedrick
- During SCI Pilots Soil Regen will
  - Provide interpretive guidance on soil health tests
  - Assist farms to create an SCI Farm Plan
  - Provide periodic consulting and connections to ensure farmer success on implementing farm plan

Thank you to Liz and Russell for your support and guidance!
SCI Marketing Partner
• Led by: Raphael Bemporad
• Consumer Research
• Developing:
  ◦ Consumer-Facing Label
  ◦ Brand Strategy
  ◦ Consumer Campaign

Attend special webinar in May with BBMG on consumer research, brand strategy, & label!
CALL TO ACTION!
JOIN US!
APPLY FOR THE 2022 SCI PILOTS

• Visit [www.soilcarboninitiative.org](http://www.soilcarboninitiative.org)
• Review the criteria and the farm requirements
• Apply to be part of the pilots
• Got questions? We’re here! Schedule a call.
  ◦ **Farmers:** Taylor Herren at therren@greenamerica.org
  ◦ **Companies:** Mai Ichihara at michihara@greenamerica.org

Pilot Applications Close April 5, 2022, Midnight EDT
THANK YOU!

Q & A & COMMENTS