



20/21  
ANNUAL REPORT

# SETTING A NEW STANDARD IN SUSTAIN- ABILITY



U.S. COTTON  
TRUST PROTOCOL®

# U.S. COTTON TRUST PROTOCOL



In a period of ever-greater supply chain scrutiny and a growing demand for transparency, the U.S. Cotton Trust Protocol will set a new standard in more sustainably grown cotton. It brings quantifiable and verifiable goals and measurement to the issue of responsibly-grown cotton production and drives continuous improvement in key sustainability metrics. The U.S. Cotton Trust Protocol underpins and verifies U.S. cotton's progress through sophisticated data collection and independent third-party verification.





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# 01: STARTING AS WE MEAN TO GO ON



” The U.S. Cotton Trust Protocol (Trust Protocol) has made significant strides in its first year. We have established a new system for sustainably grown cotton from scratch. One that now counts 560 organizations across the supply chain as members.

This includes over 525 mills and manufacturers and 37 global brands and retailers and we continue to see strong growth. Enrolling approximately 950,000 cotton bales, this represents 6% of all U.S. cotton grown in 2020/21.

Today, the Trust Protocol offers unrivalled transparency and visibility of cotton through the supply chain, backed by an unparalleled level of independently verified data from our grower members. We are bringing quantifiable and verifiable goals and measurement to the key sustainability metrics of U.S. cotton production — building trust from field to fabric and enabling continuous improvement across the supply chain.

The Trust Protocol was designed to deliver a better future for U.S. cotton, ensuring that it contributes to the protection and preservation of the planet, using the most sustainable and responsible techniques. At the same time, we wanted to meet the needs of brands and retailers in the fashion and textile industries, which are increasingly expected to show the sourcing data for their products. With the Trust Protocol we are providing access to more sustainably grown cotton for brands and retailers, and science-based, data-led assurances that their consumers can have confidence in — something that has been lacking in the industry to date.

The U.S. cotton industry’s existing commitment to leadership in more sustainable cotton growing practices was clear as we developed the Trust Protocol. It’s an industry that is innovative and technologically sophisticated. It is crucial we enable the sector to build on these strengths

in years to come in the pursuit of evermore sustainable forms of production and assurance across the supply chain.

As we approach the end of 2021, we appreciate the hard work and effort that has gone into the Trust Protocol’s creation. Our members and partners — the growers, gins, merchandisers, mills, manufacturers, brands, retailers and industry and non-governmental organizations — have come together to support this initiative in the midst of a global pandemic that has tested every industry and supply chain across the world.

Amid all the disruption and unpredictability, they have joined and worked with the Trust Protocol, showing not only their resilience but their commitment to sustainability.

The Trust Protocol’s first full pilots of the data collection programs will soon be completed and our work will be in full swing. We have an ambitious goal of bringing on board three million bales of cotton for 2021/22, our second year, and enrolling 50% of the cotton grown in the U.S. by 2025. We will also continue in our effort to enroll 100 global brands and retailers and 1,000 mills and manufacturers. We will continuously review and update targets each year.

It’s an exciting time and we are pleased to share our progress, data insights to date, and vision for the future of more sustainable cotton with members and stakeholders across the sector as a whole. Thank you for partnering and collaborating with us in this effort.



**Dr. Gary Adams**

President, U.S. Cotton Trust Protocol



# A NOTE FROM THE BOARD OF DIRECTORS



The U.S. Cotton Trust Protocol was built on a unique foundational understanding and perspective of the U.S. cotton industry. When comprising the inaugural Board of Directors, it was integral to incorporate delegates from across the entire supply chain, leading industry, scientific and academic experts, as well as representatives from world-renowned environmental organizations. Realizing new demands and priorities, the board will expand to incorporate representatives on social and labor best practice.

Each individual brings their own expertise from within the cotton industry, a thorough understanding of the sustainability challenges facing the textile industry, or experience within the retail sector. We are committed to working collectively to ensure the Trust Protocol progresses against its sustainability commitments and requirements throughout the supply chain with an unmatched level of transparency and accountability.

We will govern and guide as the Trust Protocol works to promote farmer livelihood, environmental stewardship, caring of people and community, in addition to personal and corporate integrity.

## Board of directors

Aaron Barcellos  
*Cotton Producer, California*

Matt Coley  
*Cotton Producer, Georgia*

Dahlen Hancock  
*Cotton Producer, Texas*

Ted Schneider  
*Cotton Producer, Louisiana*

David Blakemore  
*Cotton Ginner, Missouri*

Dr. Lori Duncan  
*University of Tennessee, Tennessee*

Steven Dyer  
*Louis Dreyfus Company, Tennessee*

Melissa Ho  
*World Wildlife Fund, Washington, DC*

Kris Johnson  
*The Nature Conservancy, Minnesota*

Joe Little  
*Tesco, United Kingdom*

Jim Martin  
*Parkdale Mills, North Carolina*

Hank Reichle  
*Staplcotn, Mississippi*

Liza Schillo  
*Levi Strauss & Co., California*

Fred Serven  
*Archer Daniels Midland, Tennessee*



# 02: ABOUT US

Aligned with the U.N. Sustainable Development Goals, the Trust Protocol brings quantifiable and verifiable goals and measurement to more sustainable cotton production and drives continuous improvement in six key sustainability metrics – land use, soil carbon, water management, soil loss, greenhouse gas emissions, and energy efficiency.

In the United States, cotton is produced in the 'cotton belt' which is comprised of 17 states stretching east to west from Virginia to California. The U.S. Department of Agriculture approximates that cotton production covers 12.1m acres, with Texas being the largest producer contributing approximately 40 percent of U.S. cotton production in recent years. Other top cotton producers include Georgia, Mississippi and Arkansas.

The Trust Protocol is designed to fit the unique cotton growing environment of the United States and is aligned with the national sustainability goals for continuous improvement.

By providing data on key environmental metrics, the Trust Protocol sees its role as providing grower members with self-assessment and benchmarking capabilities to improve their operations as well as empowering brand and retailer members in communicating about sustainable sourcing to their customer base and other stakeholders.



In its first year, the U.S. Cotton Trust Protocol welcomed 37 global brands and retailers, with a goal of 100 global brands and retailers by the end of 2022.



This includes leading brands and retailers such as Levi Strauss & Co, Gap Inc., PVH Corp. and Gildan.

## PVH Gap Inc.

PVH and Gap Inc. are working with the Trust Protocol as part of its commitment to use only 100% sustainably sourced cotton by 2025.

## GILDAN

Gildan Activewear and its portfolio of company-owned brands, including Gildan®, Alstyle®, American Apparel®, and Comfort Colors®, is focused on working with the Trust Protocol to increase transparency into its supply chain.



# TIMELINE

## 2017

The U.S. Cotton Trust Protocol takes root, as the U.S. cotton industry decides to initiate a new program to set a new standard in more sustainably grown cotton

**Planning activity by a taskforce begins**

## June 2020

The Trust Protocol is added to Textile Exchange's list of preferred fibers and materials

Trust Protocol selects Control Union Certifications as third-party verification process

## September 2020

Trust Protocol launches nation-wide grower recruitment campaign

## November 2020

Trust Protocol joins Cotton 2040's platform and sustainability guide

The Trust Protocol hosts a virtual farm tour for brands and retailers

## December 2019

Inaugural meeting of the Trust Protocol Board of Directors and Advisors

## July 2020

Brand and retailer membership to the Trust Protocol opens, allowing reliable measurement in sustainability progress

The Trust Protocol releases research that the consumer demand for sustainable action has grown during COVID-19

## October 2020

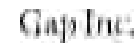
**Trust Protocol is officially launched**  
The U.S. Cotton Trust Protocol is officially launched, working to set a new standard in more sustainable cotton production.

The Economist Intelligence Unit and Trust Protocol release research on sustainability attitudes

## December 2020

First 10 U.S. mills sign up to the U.S. Cotton Trust Protocol

**Gap Inc. joins the Trust Protocol as the first global brand**  
It aims to source 100 % of its cotton from more sustainable sources by 2025



## April 2021

U.S. Cotton Trust Protocol Opens Grower Enrollment for 2021 Crop

The U.S. Cotton Trust Protocol Joins Sustainable Apparel Coalition

**U.S. Cotton Trust Protocol and TextileGenesis™ announce collaboration** delivering unparalleled supply chain transparency through the Protocol Consumption Management Solution (PCMS)

## January 2021

U.S. Cotton Trust Protocol welcomes first members in Latin America

## March 2021

UK retailer Next joins as member

Luxury men's brand Byford joins as member



Sustainable denim manufacturer, Advance Denim, joins as member



The Trust Protocol releases research one-year into the pandemic

**U.S. Cotton Trust Protocol Welcomes over 300 brand, retailer, mill and manufacturer members in Six Months**

## June 2021

Gildan joins the U.S. Cotton Trust Protocol



Tesco joins as a member



## September 2021

PVH Corp and their brands Tommy Hilfiger and Calvin Klein join the Trust Protocol



Calvin Klein

TOMMY HILFIGER

## October 2021

The Trust Protocol celebrates one-year accomplishments, including enrolling more than 560 members throughout the textile supply chain

## July 2021

Levi's Strauss & Co, and their legacy brands, join as members





# PROGRESS TOWARD SUSTAINABILITY GOALS

## LEVI STRAUSS & CO.

” With more than 90% of Levi Strauss & Co. products being cotton-based, joining the U.S. Cotton Trust Protocol is a great fit for our business and broader materials and sustainability strategy.

We were drawn to the Trust Protocol because it offers three important things to Levi Strauss & Co. – first, its focus on ongoing efforts to make U.S. cotton production more sustainable, second its measurable, verified data across sustainability metrics and third, its fully transparent view of the cotton supply chain.

Collectively, this promises to help us track progress toward our sustainability goals – including our water and climate targets – and communicate the impact of this work to consumers and key accounts.

Levi Strauss & Co. is working with partners to drive more sustainable methods of cotton cultivation around the world, along with greater traceability and a clearer sense of its impacts where it's grown. The Trust Protocol is now an important part of that and it allows us to further diversify our more sustainable cotton portfolio, as we also look to other programs involving more sustainable cotton sources, including organic and recycled, and scale the use of alternative fibers such as cottonized hemp.



**Jeff Hogue**

Levi Strauss & Co.  
Chief Sustainability Officer



300

Growers

37

Brands & Retailers

525

Mills & Manufacturers  
(including subsidiaries)

Membership

Future Targets

↓ 18%

Further reducing water use

↑ 13%

Increase land use efficiency

↓ 39%

Reduce greenhouse gas emissions

↑ 30%

Increase soil carbon







↓ 50%

Reducing soil loss

↓ 15%

Decrease energy use

Looking forward, U.S. Cotton Trust Protocol growers will **work towards the U.S. cotton national 2025 goals** (set against 2015 statistics)

-  Irrigated water use
-  Soil conservation
-  Land use
-  Soil carbon
-  Energy use
-  Greenhouse gas emissions

Six Metrics

to validate Sustainability Performance

Physical Footprint

950,000 Bales

Enrolled in program for 2020

3M Bales

Aim for 2021/22

300 Producers

Enrolled in the Trust Protocol for the 2020/21 crop and plan to **enroll 750 producers** for 2021/22

2020/21  
BY THE  
NUMBERS



# THEORY OF CHANGE

The Trust Protocol's [Theory of Change](#) is grounded on science-based measurement and feedback. Specifically, the Theory of Change outlines that our mission is to bring quantifiable and verifiable goals and measurement to the key sustainability metrics of U.S. cotton production including land use, soil loss, water reduction, soil carbon, greenhouse gas emissions and energy use.

**Mission:** To bring quantifiable and verifiable goals and measurement to the key sustainability metrics of U.S. cotton production.

**Vision:** To set a new standard in sustainable cotton production where full transparency is a reality and continuous improvement to reduce our environmental footprint is the central goal.

**Core values:** A commitment to U.S. cotton's legacy of authenticity, innovation and excellence, environmental stewardship, caring of people, and personal and corporate integrity.

## Farm to Fabric

**Our Theory of Change is based on science based measurement and feedback**

### Member and Stakeholder contribution

- Adopting continuous improvement measures to reduce environmental footprint on the field
- Implementing regenerative practices in cotton production
- Sharing farm data to validate progress toward quantifiable and verifiable goals
- Validating supply chain transactions by each member of the value chain
- Consumption of Protocol Equivalent Cotton by brands and retailers

### Grower adoption of production principles and criteria

- Soil health
- Nutrient management
- Crop health management
- Water management
- Biodiversity
- Farm management
- Worker well-being

### Trust Protocol contribution

- Measuring and validating environmental impact shared with farmers and stakeholders
- Setting and tracking progress against environmental indicators
- Facilitating supply chain transparency for U.S. cotton
- Sharing sustainable crop growing practices
- Ensuring compliance with responsible labor practices

### Impacts

- Increased environmental sustainability of U.S. cotton production, in line with climate goals and the development of resilient ecosystems
- Sustainable livelihoods are maintained for growers and their communities, protecting and preserving the fields and farms for generations to come
- Securing the future of U.S. cotton by building market trust in transparent, evidence based, responsible practice

### Outcomes

- Scaling sustainable agriculture and adaptation to climate change
- Worker well-being is promoted and supported
- Cotton supply chain map available to brands and retailers
- Increased consumer awareness, market reach and uptake of U.S. by brands and retailers
- Increased demand for fiber supports farmer enrollment at scale
- Greater alignment, integration and comparability of cotton sustainability programs

### Outputs

- Robust field level data linked to farming practices is available for both farmer and stakeholder analysis
- Regulatory protection for worker well-being is enhanced with additional assurance
- Adoption of farm practices aligned to continuous improvement opportunities
- A transparent supply chain for cotton is demonstrated
- Collaboration across the sector to align on common definitions and measurement of cotton impact metrics and interventions
- Brands and retailers up-taking and promoting U.S. cotton as a more sustainable source

### Interventions

- Engaging farmers in regular, data assured, reporting of field practices
- Obtaining farmer commitment to continuous improvement and adoption of innovative approaches
- Facilitating systemic flow of information through the value-chain
- Aligning of cotton production benchmarking and analysis with industry needs
- Engagement of all stakeholders in creating demand across the supply-chain
- Building industry awareness of environmental impact and improvement opportunities for cotton

Membership Journey



# WORKING WITH OUR MEMBERS

At the Trust Protocol, we set out to create a verified system - based on clear data - that would complement other industry sustainability programs and metrics but that catered to the uniqueness of U.S. cotton.

As such, it contributes to brands' and retailers' ability to not only track, analyze, and benchmark their own environmental and social impact but it also enhances visibility of their supply chain.

Consumers, policy makers, trade organizations, and environmental and social non-profits are all contributing to the increased scrutiny of the impact brands and retailers have on the environment and labor force. The Trust Protocol was developed with a multitude of stakeholders in the cotton industry to provide transparent information about the production of cotton within each brand and retailer's supply chain.



### Cotton growers

Data-driven insights and information on best practices for more sustainable growing from across the industry

Verified data year-over-year

Verified documentation which showcases land management and showcasing environmental stewardship



### Mills & manufacturers

Ability to demonstrate critical transparency assurances to buyers that the cotton they supply comes from fiber grown with lower environmental and social risk



### Brands & retailers

Verified data and supply chain visibility to evidence and quantify organizational sustainability goals

Supported sustainability and traceability storytelling to shareholders, employees and customers



# THE ROLE WE PLAY

For decades, the 16,000 cotton farms in the United States have made great strides toward continuous improvement in more sustainable growing practices. Over the past 35 years, U.S. cotton production has evolved – using 79% less water and 54% less energy while reducing greenhouse gas emissions by 40%, all measured per unit of cotton production. At the same time, they have increased land use efficiency by 49% and reduced soil loss by 37%. This has all been achieved through investment in the latest technologies and growing techniques, and a commitment to the land and environment.

In recent years, scrutiny of the sustainability performance of all sectors of the global economy has intensified, as the impact of human activity on the planet and its climate has become increasingly understood, visible and alarming.

The responsibility to respond to this challenge is urgent, and it will take the work and co-operation of all sectors of society – governments, corporations, NGOs, academia and each individual.

At the Trust Protocol we recognized this need and the initiative was conceived in the belief that the U.S. cotton industry must play its part in doing as much as it can to protect and preserve the planet, and in a way that is measurable and quantifiable.

At the same time, we have been increasingly aware of the expectations placed on brands and retailers to meet demands for supply chain transparency and environmental regulation, and that confidence in sustainability investments, materials in the supply chain, and in evidencing sustainability goals and objectives is now essential.

The Trust Protocol meets these needs and more. Aligned with the UN Sustainable Development Goals, it sets a new standard in more sustainably grown cotton and provides unrivalled transparency and visibility throughout the supply chain, backed by an unparalleled level of independently verified data about the environmental impacts of the cotton grown by its members. It also seeks to continuously improve environmental and social impact and supports clear 2025 sustainability targets for the cotton growing industry on metrics from water use to greenhouse gas emissions.

To get this work right, we established a multistakeholder Board of Directors with representatives from each stage of the U.S. cotton value chain and independent experts – from growers, gins, merchandisers, manufacturers, and academics, to fashion brands, retailers and environmental NGOs – to work together to deliver a best-in-class initiative for more sustainably grown cotton.

From working with growers to understand their practices, to designing a data collection system and establishing an independent third-party verification process, U.S. cotton is the world's first sustainable cotton fiber to offer article level supply chain transparency through the Protocol Consumption Management Solution (PCMS).

The PCMS utilizes blockchain technology that allows the creation, tracking, and consumption of Protocol Cotton Consumption Units and is designed to capture the movement of Protocol Cotton fiber as it flows through brand and retailer supply chains.

Everything begins with grower members who voluntarily provide farm-level information on six key sustainability metrics of land use, soil carbon, water management, soil loss, greenhouse gas emissions and energy efficiency as well as share reporting on their compliance to government regulations in the areas of labor and farm management. Data, collected using a tool developed by Field to Market: The Alliance for Sustainable Agriculture, is aggregated and analyzed and verified via Control Union Certifications North America.

The process continues in the gins and mills where each bale's gin weight is verified against a USDA master list for authenticity and duplication. Using the TextileGenesis platform, a traceability platform custom built for the apparel ecosystem and that works seamlessly with the Trust Protocol's own platform, verified bales are then minted, by kilogram, into Protocol Cotton Consumption Units.

Once claimed, brands and retailers will be able to report against their own sustainability goals and targets.

Together, this represents one of the most ambitious and robust sustainability initiatives available. In its first year, the Trust Protocol has been recognized by Textile Exchange and Forum for the Future and it is now part of Sustainable Apparel Coalition, Cotton 2025 Sustainable Cotton Challenge, Cotton 2040 and Cotton Up initiatives.



My favorite thing about the Trust Protocol is that it gives me a chance to talk about my farm and share my story. I've grown cotton for 41 years and have seen over four decades of innovation within the cotton industry. The Trust Protocol is an innovative tool that allows me to show how I'm managing my data and what data I'm using to be more sustainable.



**Dahlen Hancock**

U.S. Cotton Trust Protocol grower member, Texas



# BUILDING BLOCKS








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-  Water use
-  Soil loss
-  Land use efficiency
-  Soil carbon
-  Energy efficiency
-  Greenhouse gas emissions

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# 03: GOVERNANCE



The Trust Protocol is led by its president and an expert Board of Directors and Advisors – a group of experienced professionals from across the cotton value chain.

The Board of Directors and Advisors meet every second month and provide an essential role in directing the activity of the Trust Protocol. All members bring valued perspective and expertise.

” Cotton is the most widely used and important natural fiber in the world. And the United States, as one of the leading producers and exporters of cotton globally, plays a vital leadership role in the global cotton market. In the US, nearly 20 million bales of cotton, valued at about \$7 billion, are produced on over 16,000 mostly family-owned farms, supporting the livelihoods of hundreds of thousands of producers and workers across the supply chain.

But unsustainable cotton production poses serious threats to climate and nature, including the pollution and overconsumption of scarce water resources, the degradation of soils, the loss of the biodiversity, and greenhouse gas emissions.

WWF applauds U.S. Cotton for their continued commitment to driving sustainability and innovation in the sector, and to their goals of raising ambition and demonstrating impact. The U.S. Cotton Trust Protocol provides growers in the U.S. with a pathway and a means to credibly demonstrate their progress.

WWF is proud to engage with the U.S. Cotton Trust Protocol in support of our common objectives of advancing sustainable cotton production in the U.S. and ensuring that U.S. producers are supported and recognized for their sustainability achievements by consumers and in the global marketplace.



**Melissa Ho**  
World Wildlife Fund,  
Board Member

## Board of directors

Aaron Barcellos  
*Cotton Producer, California*

Matt Coley  
*Cotton Producer, Georgia*

Dahlen Hancock  
*Cotton Producer, Texas*

Ted Schneider  
*Cotton Producer, Louisiana*

David Blakemore  
*Cotton Ginner, Missouri*

Dr. Lori Duncan  
*University of Tennessee, Tennessee*

Steven Dyer  
*Louis Dreyfus Company, Tennessee*

Melissa Ho  
*World Wildlife Fund, Washington, DC*

Kris Johnson  
*The Nature Conservancy, Minnesota*

Joe Little  
*Tesco, United Kingdom*

Jim Martin  
*Parkdale Mills, North Carolina*

Hank Reichle  
*Staplcotn, Mississippi*

Liza Schillo  
*Levi Strauss & Co., California*

Fred Serven  
*Archer Daniels Midland, Tennessee*

## Board of advisors

Garry Bell  
*Chasing Better Consultants, Quebec, Canada*

Dr. Jesse Daystar  
*Cotton Incorporated, North Carolina*

Bill Gillon  
*The Cotton Board, Tennessee*

Dr. Andrew Jordan  
*Jordan & Associates, Tennessee*

Marc Lewkowitz  
*Supima, Arizona*

Mark Pryor  
*The Seam, Tennessee*

Michael Quinn  
*Frontier Spinning Mills, North Carolina*



The Trust Protocol is continuously monitored through the following practices:

### Relevance to growers

In addition to direct dialogue with grower members and their representatives on the Trust Protocol board, second- and third-party assurance verifications provide a direct source of feedback on the applicability of the program at farm level.



### Relevance to industry

In addition to representation on the Trust Protocol board, frequent and wide-ranging engagement is maintained throughout the Trust Protocol year with members and prospective members from all stages of the textile value chain. Direct feedback from industry members is received through individual meetings, trade events, surveys and wider observation of industry needs and trends.



### Strategic partnerships

We work hard to bring specialist expertise and capability to the program, providing insight that enhances the Trust Protocol's ability to maintain relevance to the groups it serves, and adopting established best practices.



# MONITORING & REVIEW PROCESS

The Trust Protocol strategy and operational efficacy is regularly reviewed by its multi-stakeholder board and expert advisors. A continuous source of feedback and review from a broad range of stakeholder groups helps ensure relevance of the Trust Protocol.

Looking forward, the Trust Protocol seeks more structure in its approach to program review and improvement, hence pursuing participation in the ISEAL community and progression toward the ISEAL codes of best practice.





# 04: WHERE WE BEGAN

The U.S. Cotton Trust Protocol has its origins in a recognition that the U.S. cotton industry had an important role to play in the protection and preservation of the planet and that it must do so via a system that was measurable and quantifiable.

We were also specifically motivated by an appreciation of two key trends: firstly, an awareness of the hard work and commitment of many U.S. cotton growers to the highest environmental and labor standards. Secondly, by an understanding of the growing expectation of brands and retailers to not only provide goods that have highly transparent supply chains and a robust sustainability profile, but to provide the evidence of this too.

At the Trust Protocol, we set out to bring these stakeholders together – to share the work of U.S. cotton growers – showing the world their capability – while aiding them to build on their success to support the U.S. cotton industry to become a world leader in more sustainable cotton.

At the same time, we worked to enable brands and retailers across the world to access cotton – a primary material – that has a sustainability profile and supply chain that is transparent and to do so via a system that gave them measurable, quantifiable and verifiable data that they could use to evidence and benchmark their sustainability progress.

There was also an opportunity to bring a new approach to complement existing sustainability standards in cotton, and to create a system that would suit larger scale, technologically advanced and lower manual labor farming.

To deliver maximum value, the Trust Protocol was designed to deliver data and supply chain transparency – two highly sought-after elements in sustainability reporting – that have been hard to come by to date. The initiative responds to this need, providing robust data on environmental impact and a system that tracks cotton through the supply chain.

The result is a program that is now receiving recognition from across the sustainability and fashion and retail sectors. In its first year alone, the Trust Protocol joined the Sustainable Apparel Coalition, was included on Textile Exchange's list of preferred fibers and materials and joined the Cotton 2040 initiative from Forum for the Future. Work will continue with all partners in the shared mission to promote sustainability.



MARKETPLACE, REGULATIONS,  
AND EXCEEDING EXPECTATIONS

The United States plays a vital role in the global cotton market, acting as a key producer and exporter of the fiber. From August 2019 to July 2020, the 16,000 cotton farms in the U.S. produced nearly 20 million bales of cotton, representing about \$7 billion in total value<sup>1</sup>. As the world's leading cotton exporter, the U.S. cotton industry provides more than 115,000 jobs and contributes to \$22 billion in direct business revenue<sup>2</sup>.

Cotton grown in the U.S. is among the most meticulously regulated in the world and meets a variety of stringent regulations and standards that protect workers, consumers, and the environment.

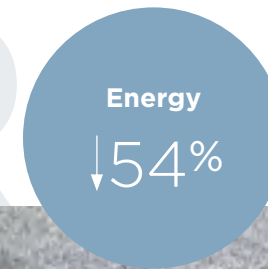
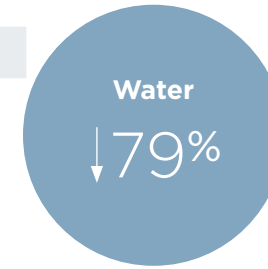
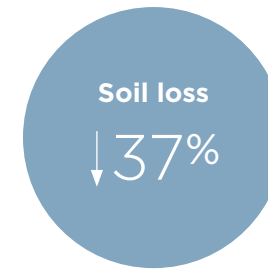
In order to meet and exceed these regulations, U.S. cotton growers have evolved their practices by incorporating cutting-edge technology. Through their use of precision agriculture, analytics, and automation, U.S. growers have been able to greatly reduce their impact on the environment, which has translated to increased on-farm efficiencies in fertilizer use, irrigation, and overall improved soil health.

However, we want to work with the industry to help it to go further and to share best practices to deliver continuous improvement.

<sup>1</sup> U.S. Department of Agriculture, Economic Research Service (2020), 'Cotton Sector at a Glance'

<sup>2</sup> National Cotton Council of America (2020), '2021 National Cotton Council report to members: Highlights NCC work on key cotton issues during 2020'

# U.S. COTTON GROWERS



Over the past 35 years U.S. cotton growers have reduced soil loss by 37%, used 79% less water and 54% less energy, reduced greenhouse gas emissions by 40% and land use by 49%, all while increasing yield by approximately 42%.





U.S. COTTON:

# A HIGH-TECH INDUSTRY

The U.S. cotton industry is one of the most high-tech industries around, as growers continue to evolve their sustainability practices.

Today, 63% of U.S. cotton growers utilize precision agriculture technology including GPS receivers, multi-spectral images and ground-based sensors. These technologies gather field-specific parameters including soil conditions, nutrients and water availability. They assess the data to deploy site-specific crop management practices to maximize yields and minimize crop inputs. Real-time weather radar allows growers to avoid activities affected by storms, such as run-off from nutrient and herbicide applications. Yield maps show how areas within fields may need different management.

A commitment to continuous improvement for today's cotton growers encompasses utilizing both the most innovative growing practices and cutting-edge technology.

Specifically, over the past 35 years U.S. cotton growers have reduced soil loss by 37%, used 79% less water and 54% less energy, reduced greenhouse gas emissions by 40% and land use by 49%, all while increasing yield by approximately 42%.

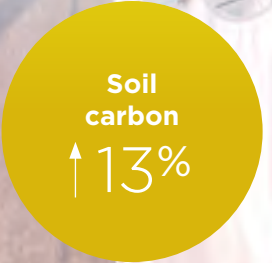
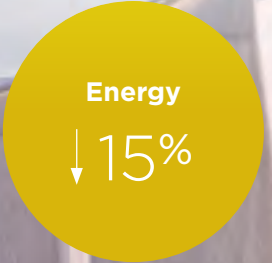
These environmental advances, and the pursuit of progress in additional areas will help the U.S. cotton industry as it works to fulfill the demands of present and future generations, making the U.S. cotton industry a key player in a sustainable future.

Safe labor conditions and worker well-being are as equally important to the U.S. cotton industry as the environment, and United States' workforce employment practices are held to a rigorous standard through regulations that include provisions for minimum wage, overtime pay, record keeping, child labor standards, migrant housing, access to uncontaminated water, protective equipment and the provision of medical assistance in case of emergency.





# ADVANCES FOR THE FUTURE



The Trust Protocol provides the opportunity to share but also improve on these existing U.S. cotton industry successes, with work focused on driving continual advancement in environmental stewardship across six key environmental metrics and worker well-being focused on 12 safe labor criteria.

As an industry, U.S. cotton has ambitious environmental impact goals and the Trust Protocol is one way to advance a path to greater success. The Trust Protocol's six continuous improvement metrics in land use, soil conservation, energy use, greenhouse gas emissions, soil carbon, and irrigated water use align with the U.S. cotton industry's 2025 national goals of decreasing greenhouse gas emissions by 39%, soil loss per acre by 50%, water use by 18%, and energy use by 15% while increasing soil carbon by 30% and land use efficiency by 13%<sup>3</sup>.

<sup>3</sup> [Cotton Sustainability Goals](#)

In order to support this endeavor, the Trust Protocol has ambitious goals of its own, including enrolling 50% of the cotton grown in the U.S. by 2025.

As we build momentum, the ambition is that funds will flow into a grower development fund focused on future continuous improvement.



In the past decade, there has been an increasingly urgent understanding of the impact of human behavior on the planet, with governments, inter-governmental organizations, corporations, the third-party sector, consumers and individuals all facing a collective responsibility to act.

According to the United Nations Economic Commission for Europe, the fashion and textiles industry produces nearly 20% of global wastewater and emits about 10% of global carbon emissions<sup>4</sup>.

Growing awareness of this impact amongst consumers has raised concerns around the sustainability profile of a product and this is a factor that is now increasingly influencing consumer spending.

According to research conducted by the Trust Protocol and the Economist Intelligence Unit in 2020, 51% of decision makers at brands and retailers believe that consumers are driving the increased focus on sustainability issues in the fashion and textile industry. The interviewees in the study also went further, saying that they viewed each successive generation as more willing than its predecessors to demand sustainable goods<sup>5</sup>.

Regulations with regards to climate change are also ramping up globally. The current U.S. administration has affirmed support for climate change policy by rejoining the Paris Climate Agreement and delving into the development of agricultural carbon markets.

The EU has set targets for reducing net emissions by at least 55% by 2030 compared to 1990. These types of goals are no longer aspirational, but obligations laid down in the first European Climate Law, guided by the ambition of becoming the first climate neutral continent by 2050.

These drivers have increased scrutiny on all elements of business activity and across all sectors of the economy. The majority of retailers and brands in the fashion and textiles space have responded by making sustainability a key strategic priority. The incorporation of standards, systems, and certifications into supply chains and on product labels to provide assurance to consumers of their commitment to sustainability has also become increasingly prevalent.

This need has spurred a multitude of initiatives, programs, and reports with fibers emerging as a key area of focus. Here, each fiber type's impact on the environment has been examined (see Textile Exchange's annual Preferred Fiber and Materials Market Report) and tools like the Higg Index from the Sustainable Apparel Coalition are providing data and life cycle assessments on all mainstream textile materials and finished products.

# BRANDS &

The Trust Protocol recognized that brands and retailers needed access to environmental and social standards and a system they could trust when sourcing their materials.

To deliver against this, a system was developed with industry experts and designed specifically to complement existing programs. Here, it was essential the Trust Protocol simplified information sharing within the supply chain and provided the transparency and confidence brands and retailers need to satisfy consumer and policy demand.



<sup>4</sup> United Nations Economic Commission for Europe (2018), '[UN Alliance aims to put fashion on path to sustainability](#)'

<sup>5</sup> The Economist Intelligence Unit and the U.S. Cotton Trust Protocol, (2020) '[Is Sustainability in Fashion?](#)'





# TEXTILE EXCHANGE

” In 2020, Textile Exchange added the U.S. Cotton Trust Protocol to the recognized initiatives that are delivering preferred fibers and materials. We recognized the integrity and quality of its work to expand access to more sustainably grown cotton.

Textile Exchange’s Material Change Index program provides our 200+ participating brands and retailers with a selection of 36 fibers and materials that they can choose from, safe in the knowledge that those fibers and materials have been developed to a high standard of more sustainable practices.

We were impressed by the rigor of the Trust Protocol’s environmental focus, seen in the breadth of its sustainability metrics, but also the depth of the reporting and its verification. We also saw that its focus on soil health, building biodiversity and encouragement of regenerative growing practices could also not only limit harm, but also deliver positive benefits to the environment.

Textile Exchange also admired the Trust Protocol’s connection and commitment to the cotton grower community. Made of many small and medium sized farms, the Trust Protocol is helping growers to navigate big changes in the climate and in the supply chain and maintain their profitability and health of their land.

We’ve also welcomed the Trust Protocol’s support for the 2025 Sustainable Cotton Challenge, for which Textile Exchange acts as secretariat, which encourages brands and retailers to commit to source 100 percent of their cotton from the most sustainable sources by the year 2025.

Together with partners like the Trust Protocol, Textile Exchange is now working to advance our 2030 strategy Climate+ that seeks to deliver an ambitious goal of a reduction of 45% of greenhouse gases across all of the different fibers and materials.

Sustainability is a journey of continuous improvement. While working to attract new fibers and materials, we will encourage our members to go further, to deliver more sustainable, stewardship focused farming that is regenerative, restorative and responsible. This will produce materials that are good for the farmer and good for the planet, and it’s an approach that is already being taken by the Trust Protocol.



**La Rhea Pepper**  
CEO and a co-founder of Textile Exchange



# 05: IN ACTION IN THE FIELDS

In its first year, the Trust Protocol has sprung into action, putting into operation a robust mechanism to provide the verified, measurable data which is the foundation of our work.

During this time, we focused our efforts on driving awareness of the Trust Protocol and encouraging adoption. We did this by holding educational webinars, presenting at industry events, and creating a helpline where growers could call to learn more as well as receive assistance on the enrollment process.

It has been a strong start. We have enrolled 300 growers and 600,000 acres and secured approximately 950,000 bales, representing 6% of the U.S. cotton crop.

Once enrolled, we support our grower members on their progress to more sustainable growing practices and continuous improvement for the future and we have put in place a best-in-class verification process to ensure that everyone has access to data that they can trust.



# WORKING WITH THE GROWER MEMBER

The Trust Protocol starts with the grower member, where we focus on two key areas for delivering best practice insights: 1) lessening impacts on the environment and 2) supporting worker well-being and safety.

We do this by providing a robust data collection and analysis infrastructure, working with grower members to drive continuous improvement across six different metrics: land use, soil conservation, energy use, greenhouse gas emissions, soil carbon, and irrigated water use.

Five of these metrics align with the 2025 National Goals for Continuous Improvement, and the sixth metric of soil carbon index correlates with soil conservation and carbon storage, which is a good indicator for soil health.

The Trust Protocol's data collection and verification process contains multiple stages but starts when each grower member answers a 120-question self-assessment questionnaire. This includes comprehensive sections on key environmental indicators and worker well-being

and safety. On fields that represent at least 10% of their cotton acres, grower members must also complete the Fieldprint Analysis, created by Field to Market®.

Within the questionnaire, the Trust Protocol mandates that all federal and state regulations are strictly followed. Furthermore, each grower member must re-enroll every year and re-verify that they are in compliance with all regulations. Verification processes work as another layer of security, allowing us to verify that all standards are met.

Trust Protocol grower members receive aggregate sustainability metrics and customized reporting based on national environmental metrics for key sustainability indicators.





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The Trust Protocol's environmental metrics are designed to measure a specific environmental outcome at a scale relevant to a farm operation and provide meaningful feedback to the grower member.

Through the pursuit of more sustainable cotton production and continuous improvement, growers can improve the agronomics and profitability of their farm.

For example: improving soil health equates to better soil structure and nutrient availability; reducing nitrogen inputs lowers greenhouse gas emissions.

The Trust Protocol is integrated with the Fieldprint Platform from Field to Market® which grower members can use to compare their results anonymously to those in their state, and even nation-wide, to help identify opportunities for improvement and implement any required changes to drive efficiencies.

# MEASURING ENVIRONMENTAL IMPACT



We, along with many other U.S. cotton growers, have been implementing practices and taking steps to improve the health of the environment around us. Precision agriculture and other innovations have enabled us to reduce water use, energy use and improve the health of the soil.

Improvements in these areas are important to us because improvements to the land and ecosystem result in a better crop and increased profitability. Innovations like irrigation monitoring and the use of GPS have changed the way in which we grow cotton.

We joined the U.S. Cotton Trust Protocol so that we could show the world all of the steps we have taken in order to improve the sustainability of our crop. But, I will also say that we joined the Trust Protocol to also learn where and how we can improve our practices. We know it's important to always be making changes for the better, and the Trust Protocol allow us to do so in terms of sustainability.



**Marshall and Mead Hardwick**  
U.S. Cotton Trust Protocol grower members, Louisiana





# WORKER WELL-BEING HEALTH AND SAFETY



Worker health and safety are priorities for the U.S. cotton industry and the Trust Protocol contains robust criteria for labor practices supported by a grower questionnaire on worker rights and well-being.

Areas of focus include fair labor and child labor as well as safety and hygiene. If any individual registers for the Trust Protocol but does not adhere to the worker well-being principles, they are denied membership.

While labor and safety practices in the U.S. cotton industry are regulated by multiple federal and state agencies, the Trust Protocol ensures compliance through third-party verification processes, confirming that all standards are met.

U.S. regulations address provisions for minimum wage, overtime pay, record keeping, migrant housing, access to uncontaminated water, personal protective equipment, and the provision of medical assistance in case of emergency. In addition, the U.S. Department of Labor enforces the Fair Labor Standards Act which restricts the employment and abuse of child workers. Provisions under the act are designed to protect children's access to education and prohibit them from jobs that are detrimental to their health and safety. Furthermore, cotton is also considered a food crop and therefore is regulated by the Food and Drug Administration (FDA), United States Department of Agriculture (USDA), and Environmental Protection Agency (EPA).

The Trust Protocol's farm management and worker well-being principles overlap to provide full coverage of safe labor practices which include a focus on safe crop protection practices. EPA regulations mandate that farmers provide training and inform workers about pesticide safety, provide protections from potential exposure, and have plans to mitigate exposure all in ensuring the safety of employees. The EPA also ensures that workers have training on procedures to safely handle, store and apply pesticides.

## Criteria for worker well-being:

1. Workers are treated fairly
2. Wages are equal to or higher than required by law
3. Working hours comply with national and state law
4. Children are not exploited in any form
5. There is no forced, compulsory, bonded or trafficked labor
6. Workplace is kept safe by minimizing hazards
7. Discrimination of all forms is forbidden
8. Equal wages are paid to workers who perform the same job, regardless of gender, race, or ethnicity
9. Safe and hygienic sanitation is accessible
10. Potable drinking water and wash-water are provided
11. Workers have freedom of associations
12. Abuse or harassment of any kind is not tolerated

## Criteria for farm management:

1. Assure an effective farm management system
2. Keep farm infrastructure safe for workers, farm animals, and the environment
3. Provide training to promote safe working habits and practices
4. Develop continuous improvement plans using insights from Fieldprint metrics





# BEST IN CLASS VERIFICATION OF SUSTAINABILITY DATA

Once our grower members have provided their data it must be verified, and our third-party verification system is an important step in making the Trust Protocol a credible system in textiles.

The first step in the verification process is when 25% of enrolled Trust Protocol grower members are randomly selected from each region for desktop verification, while an additional 5-8% of enrollees from each region are also randomly selected for on-site verification.

All on-site verification is undertaken by Control Union Certifications, one of the most trusted names in third-party verification, with expertise in field-level data integrity.

Desktop verifications take one to two hours while on-site verifications require two to three hours. Grower members selected for verifications are not eligible to be selected again for two years.



### Third-party verification serves several purposes. It:

- Enables grower members to monitor success
- Ensures the question set remains applicable
- Allows grower members to understand any gaps between self-declaration and actual data
- Provides brands and retailers the assurances they need to confidently source U.S. cotton

Already for 2020/21, 95% of desktop verifications and 100% of field level visits have been completed . Key observations from 2020/021 include all grower members using advanced technology, allowing them to monitor, assess and manage operations and plan ahead. Likewise, grower members have invested in highly specialized equipment that provides safer working conditions and that are better for the environment.

Overall, there were no major non-compliances found.



# REFLECTIONS

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In 2020 and into 2021,  
the Trust Protocol has  
achieved much –

we have set a new standard in more sustainable cotton, enrolled a significant number of grower members, and put into motion a robust system that is capturing insightful data on two essential areas – worker well-being and environmental impact. And all assessed and tested in a best-in-class verification system.

However, we know that this is the start of our work. In 2021/22, our goal is to enroll 750 growers and 3 million bales. We also want to keep learning from our grower member community and sharing the latest innovations in sustainable growing practices across all Trust Protocol members.



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Following the strong foundation of the Trust Protocol at the farm level, we wanted to maintain the highest level of integrity in the supply chain stage of the Trust Protocol.

To achieve this, we have chosen to work with TextileGenesis, a specialist partner with the expertise and technology to augment the Trust Protocol's own platform. Together, we have created the Protocol Consumption Management Solution (PCMS), which has made the Trust Protocol the world's first sustainable cotton fiber to offer its members article-level transparency across the supply chain.

It is a system that harnesses blockchain technology to record and verify the movement of U.S. cotton fiber along the entire supply chain in a Trackable Verified Equivalency Solution. It gives brands and retailers the data they need, and offers a documented chain of custody, that may assist customs clearance. Overall, it is a fitting complement to the hard work undertaken by the Trust Protocol grower members.

06  
IN ACTION  
IN THE  
SUPPLY CHAIN



# PROTOCOL CONSUMPTION MANAGEMENT SOLUTION



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In April 2021, the Trust Protocol announced a collaboration with TextileGenesis as a way to further enhance the value of the program.

The outcome will deliver unparalleled supply chain transparency through the initiative's go-to-market offering, the Protocol Consumption Management Solution (PCMS). Initial pilot trials were conducted with five brands and retailers beginning mid-2021, with full deployment of the PCMS envisioned for early 2022.



The Trust Protocol is the world's first sustainable cotton fiber to offer its members article-level transparency across the supply chain. The PCMS harnesses blockchain technology through a powerful combination of the Protocol Platform and TextileGenesis system to record and verify the movement of U.S. cotton fiber along the entire supply chain.

Using a Verified Trackable Equivalency Solution, the PCMS can then help ensure Protocol Equivalent Cotton is used throughout the entire supply chain into finished product. Unlike any other solution on the market today, the PCMS offers article-specific, double verification of every transaction by ensuring availability of Protocol-eligible materials and by verifying commercial invoices and shipping documents.



## Protocol Consumption Management Solution Explained

### Step 1: The Grower

The Trust Protocol data collection starts with the grower who voluntarily provides farm-level information via the 120-question self-assessment on their sustainable production practices in soil health, tillage operations, water use, and pesticide management, among others. After harvest, grower members will need to complete their field assessment using an online tool developed by Field to Market.

### Step 2: Processing – Gins, Merchandisers, Mills and Manufacturers

The PCMS starts when the grower member's cotton is ginned and each unique Permanent Bale Identification number (PBI) is attached. At this point, the exact gin weight is known and an exact amount of Protocol Cotton Consumption Units are created, where one Protocol Cotton Consumption Unit is created for each kilogram of Protocol Verified Cotton. In an era when fiber origin is of utmost importance, the PBI information related to the shipments of U.S. cotton fiber by merchandisers to yarn mills are being captured in the Protocol Platform and verified against the USDA database.

In its first year, the Trust Protocol has welcomed more than 525 global mill and manufacturer members. Mills and manufacturers who join the initiative can be selected by brands and retailers as part of their supply chain as they look to source U.S. cotton fiber. The Trust Protocol has a goal of enrolling 1,000 global mills and manufacturers by 2022. Global regions/countries include Pakistan, Bangladesh, India, China, Latin America, Thailand, Indonesia, Vietnam, Turkey, Korea, Japan, Taiwan, the United States and Western Europe.

The PCMS will create a transparency map that provides the authenticated origin of the U.S. cotton, along with the names and locations of the Trust Protocol mill members that were involved in all parts of the production process, into the finished products that are shipped to the brand and retailer.

### Step 3: Brands and Retailers

As the brand and retailer members receive their Protocol-eligible finished product, the PCMS will calculate the amount of kilograms of Protocol Cotton fiber that was consumed throughout the process, taking into account waste factors along the way, into a specific number of Protocol Cotton Consumption Units which are then available for brands and retailers to claim.

When the brand or retailer receives the Protocol Cotton Consumption Units, a proportional amount of the aggregated farm-level environmental data captured by the Trust Protocol can be assigned. This enables the brand or retailer to start making their own sustainability claims and report against their science-based targets.

By providing this insight, the Trust Protocol offers brands and retailers two scarce assets in sustainability: quantifiable, verifiable data and a fully transparent supply chain.





# EMPHASIS ON MEASUREMENT AND INDEPENDENT VERIFICATION



Frontier Yarns, Inc. has a commitment to sustainability throughout all facets of our manufacturing operations. This includes zero waste practices, efficient energy usage and acquiring raw materials, such as U.S. cotton, in order to supply sustainable and recycled products to our customers.

The Trust Protocol's emphasis on measurement and independent verification can provide the confidence and trust that more responsibly grown cotton is being used, producing product consumers can believe in.

Frontier Yarns, Inc is excited to be part of the Trust Protocol. As brands and retailers respond to customer demand for sustainability, mills are now joining the conversation. Membership in the program enables us to show we are an approved supply chain partner for brands and retailers who are sourcing more sustainably grown cotton.



**Mike Quinn**

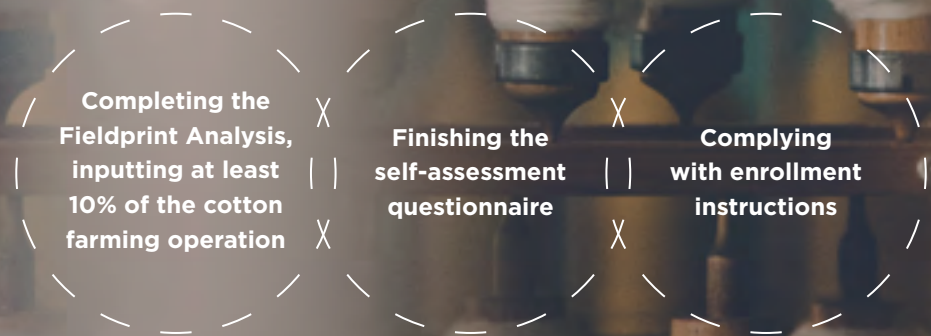
Vice President of Cotton Operations,  
Frontier Yarns, Inc



# 07: DEEP DIVE ON THE DATA

The Trust Protocol uses the Fieldprint Platform by Field to Market for reporting all sustainability metrics. The Fieldprint Calculator integrates the platform metrics and algorithms providing aggregated data on environmental impacts to the industry. In 2020/21, the Trust Protocol data set included farming practices for 300 grower members producing approximately 950,000 bales.

U.S. Cotton Trust Protocol conditions for grower members include:

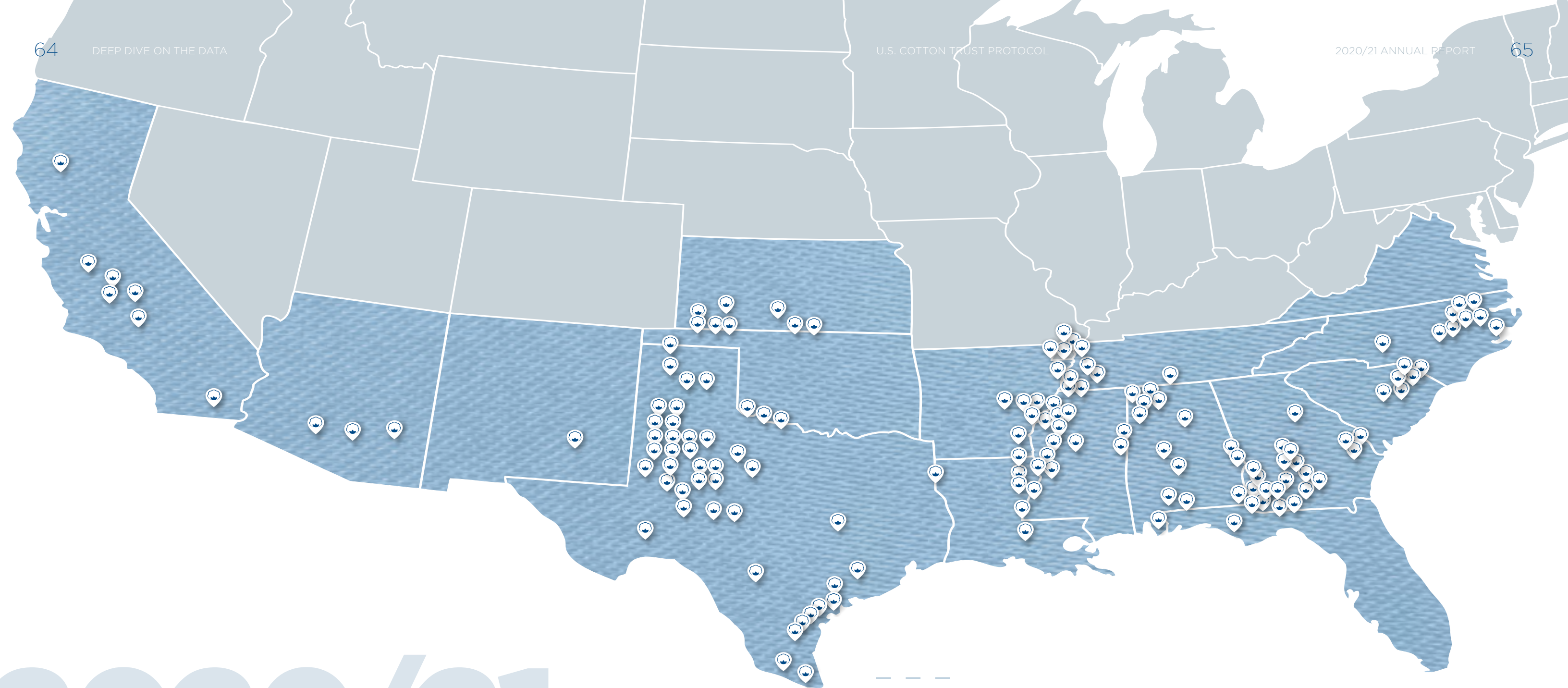


Completing the Fieldprint Analysis, inputting at least 10% of the cotton farming operation

Finishing the self-assessment questionnaire

Complying with enrollment instructions





# 2020/21 MAP OF PARTICIPATION

The data reported under the U.S. Cotton Trust Protocol was received from 16 states and 147 counties (Figure 1) across the United States. Each state and county are divided into four cotton producing regions with three of those regions further delineated as irrigated or non-irrigated: Southwest irrigated, Southwest non-irrigated, Midsouth irrigated, Midsouth non-irrigated, Southeast irrigated, Southeast non-irrigated and Far West irrigated.

**All reported data reflects weighted average (aggregate) scaled by regions. In 2020/21, there were more grower members enrolled from irrigated farms than non-irrigated, so weights are distributed as per grower numbers across the growing regions.**

Figure 1: 2020-21 U.S. Cotton Trust Protocol map representing 16 states and 147 counties across the United States.



# SUSTAINABILITY MEASUREMENT METHODOLOGY

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Sustainability measurement charts for the environmental metrics involve three sets of data — 2015 U.S. Representative group (as baseline), 2025 sustainability goals, and the 2020/21 Trust Protocol aggregate data.

1 2015 Ag district reports across the cotton-growing states generated 1,500 archetypes for the representative group dataset. Ag district reports were chosen as they represent actual crop management practices for 2015 from each area or state expert. Sustainability metrics output and yield were derived from a five-year average from each crop management district to remove the effects of annual fluctuations from weather or other natural phenomena. The university extension publishes all the crop budgets, and for the 2015 U.S. representative group the Trust Protocol used the 2015 crop enterprise budgets for inputs and averaged 2011-2015 crop yields as outputs. Multiyear average yields minimize the weather effect across the five years and create representative

archetypes simulated using the same algorithms as the Trust Protocol, allowing valid comparison. With new versions and evolutions of algorithms in the Fieldprint Platform, the numbers are subject to change.

2 2025 Sustainability goal: These goals are aligned with U.S. cotton industry national goals but for sustainability measurement of the Trust Protocol the values indicated in the charts and figures are based on the 2015 U.S. representative group.

3 2020/21 U.S. Cotton Trust Protocol Aggregate- This involves the weighted average for all the six individual environmental metrics. The reported data includes only harvested acres. In 2020/21, 31% of the U.S. planted acres were abandoned due to weather anomalies.\*

\* [USDA-NASS, NCC2021](#)





# MANAGEMENT PRACTICES

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The Trust Protocol brings quantifiable and verifiable goals and measurement to more sustainable cotton production by driving continuous improvement in six key sustainability metrics – land use, soil conservation, soil loss, greenhouse gas emissions, energy use and water management. Trust Protocol farm management practices cover both environmental and social factors.



# ENVIRONMENTAL

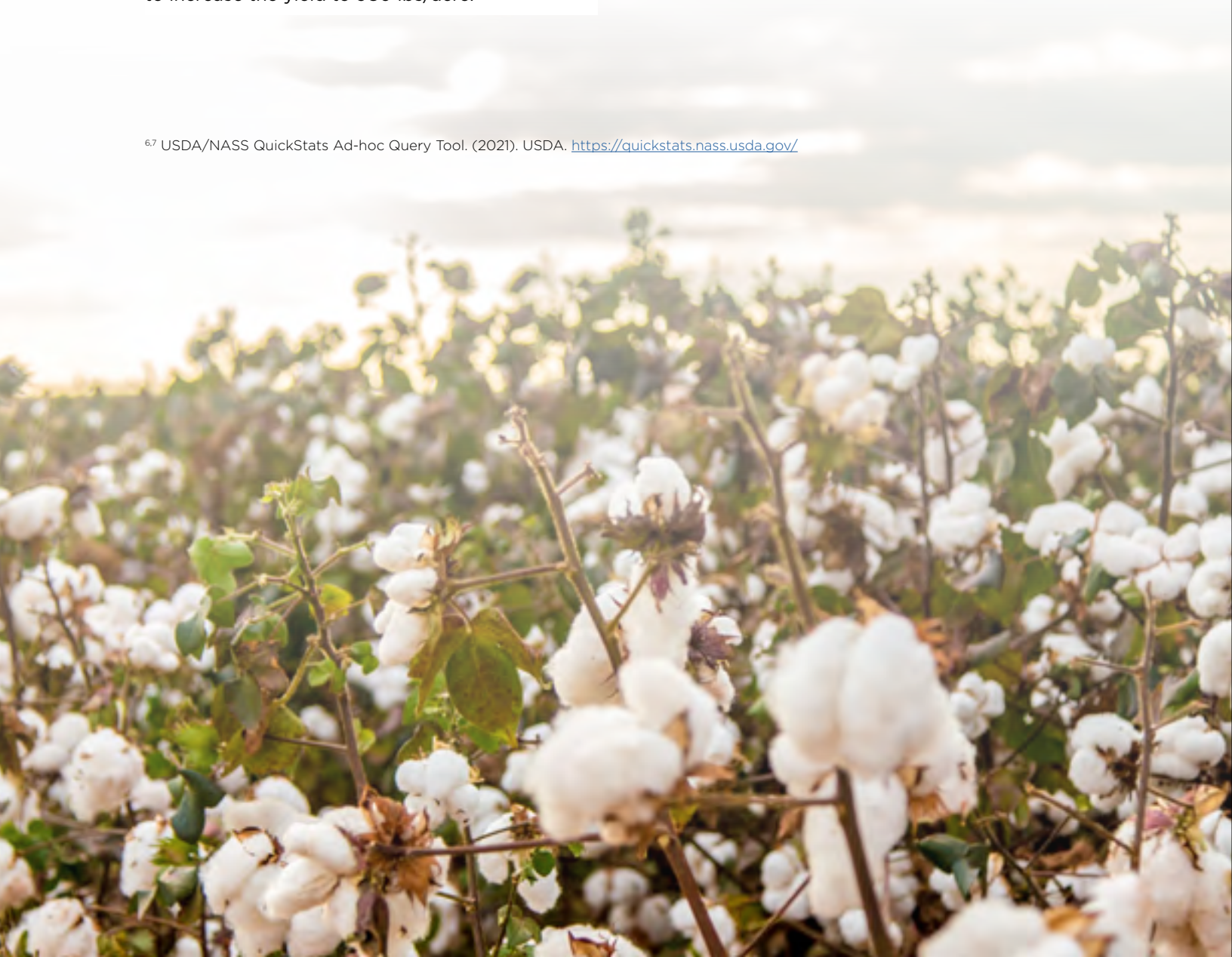


## Yield and Land Use

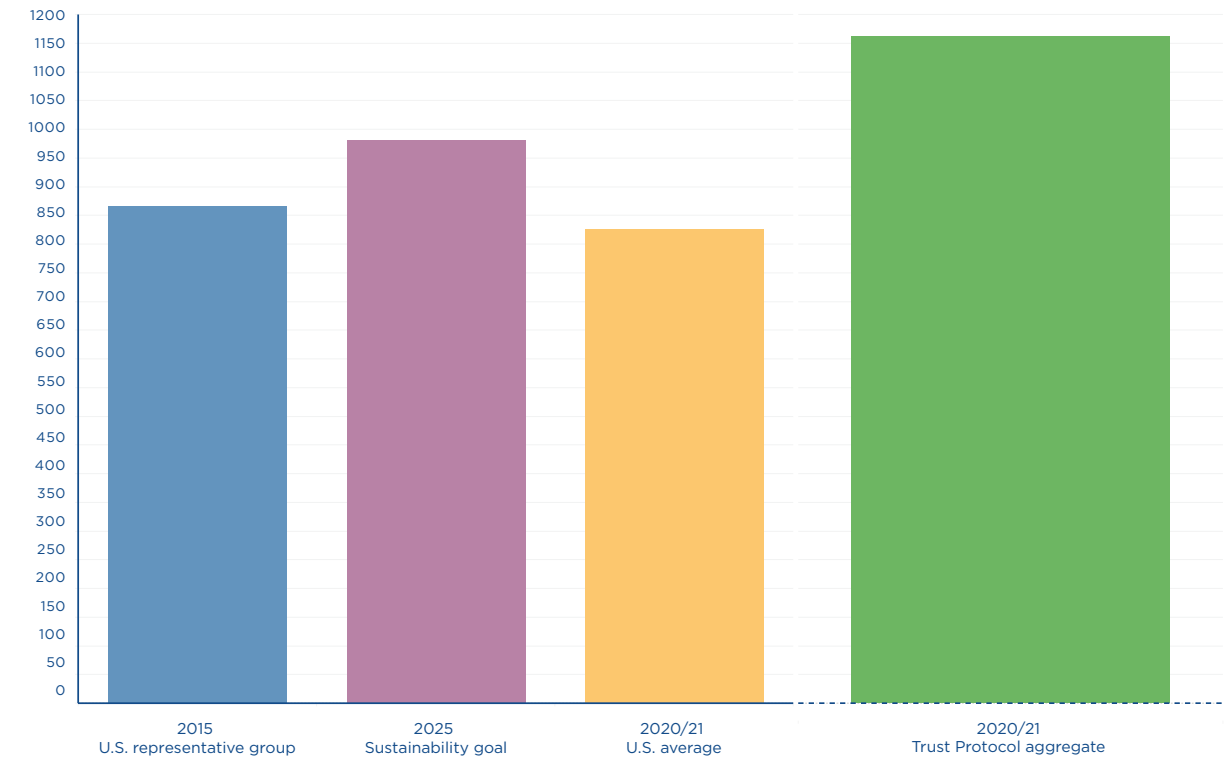
Cotton yield is measured as the quantity of raw cotton fiber harvested per acre. Yield is influenced by the genetics of the plant, management practices, and environmental factors such as temperature, radiation, humidity, and water availability. Trust Protocol growers adopt best management practices to secure the best yields. In 2020/21, the U.S. average yield<sup>6</sup> was 825 lbs/acre and the 2020/21 Trust Protocol aggregate yield was at 1,162 lbs/acre (Figure 2). The 2015 representative group derived from the Ag districts reported an average yield of 867 lbs/acre and the 2025 sustainability goal is to increase the yield to 980 lbs/acre.

Land use is calculated as the inverse of the yield. The 2025 sustainability goal for land use efficiency is an increase of 13%. In 2015 (Figure 3), the U.S. representative group average<sup>7</sup> for land use was 48 square feet required for producing a pound of cotton. In 2020/21, Trust Protocol grower members used 38 square feet to produce a pound of cotton fiber.

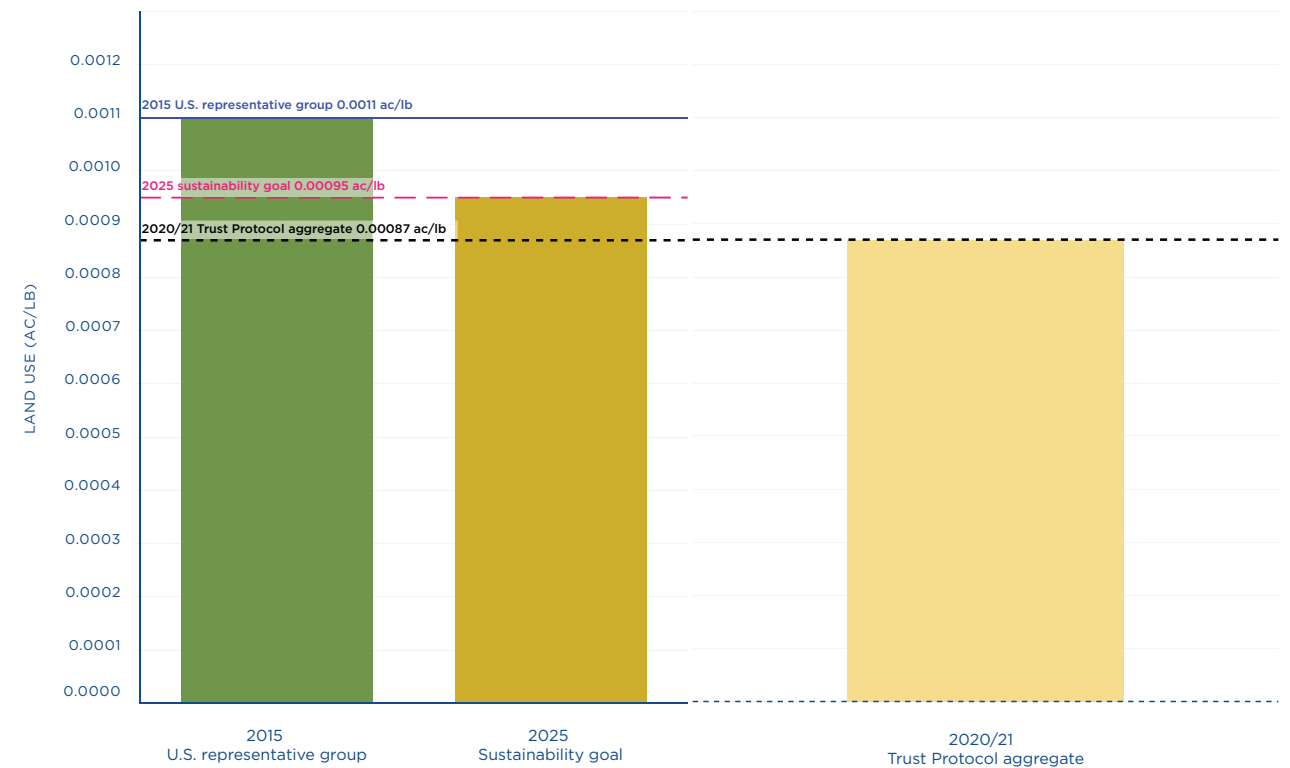
<sup>6,7</sup> USDA/NASS QuickStats Ad-hoc Query Tool. (2021). USDA. <https://quickstats.nass.usda.gov/>



**Figure 2:** 2015 U.S. representative group, 2025 sustainability goal, 2020/21 U.S. average<sup>2</sup>, and 2020/21 U.S. Cotton Trust Protocol aggregate for yield in lbs/acre



**Figure 3:** 2015 U.S. representative group average<sup>4</sup>, 2025 sustainability goal and 2020/21 U.S. Cotton Trust Protocol aggregate for land use in ac/lb





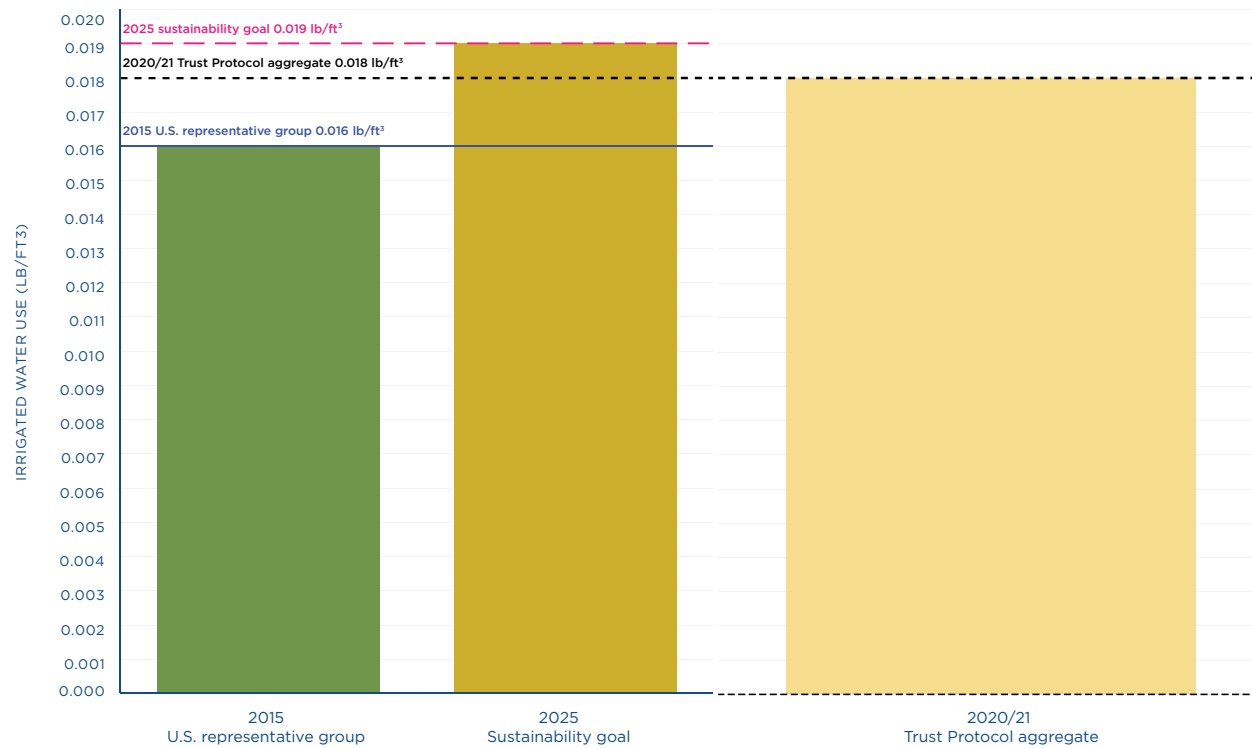
## Water Use Efficiency

The irrigation water use efficiency metric (acre-inches of water applied per additional units of production over dryland production) reflects the average increase in crop yield per unit of water applied. This metric tests the overall efficiency of irrigation water applied in crop production which is directly controlled by the decisions of the producer. Irrigated agriculture takes many forms in the United States determined by crop type, climate conditions, economic conditions, and regional water management rules. The irrigation water use metric is calculated as irrigation water applied in acre-inches divided by the difference in the irrigated yield less the expected non-irrigated yield. The value for non-irrigated yield is reported by Trust Protocol grower members and is typically based on either an estimate or the yield from an unirrigated corner of an otherwise irrigated

field. The metric measures the application of irrigation necessary to produce additional units of production and is only valid for irrigated growers.

In 2015, the U.S. representative group average was at 0.016 lb/ft<sup>3</sup>, or for each 1 cubic foot of water, 0.016 additional pounds of fiber was produced. The 2020/21 (Figure 4) Trust Protocol grower member aggregate is 0.018 lb/ft<sup>3</sup>, meaning that for every cubic foot of water used there was gain of 0.018 pounds of cotton fiber. The 2025 sustainability goal for water use is to increase efficiency by 18% which is producing 0.019 additional pounds of fiber for every cubic foot of water. In 2020/21 Trust Protocol grower members showed improvement on their irrigation water metric by increasing the efficiency by 14%.

**Figure 4:** 2015 U.S. representative group and 2020/21 U.S. Cotton Trust Protocol aggregate with the 2025 sustainability goal for irrigated water use efficiency in lb/ft<sup>3</sup>



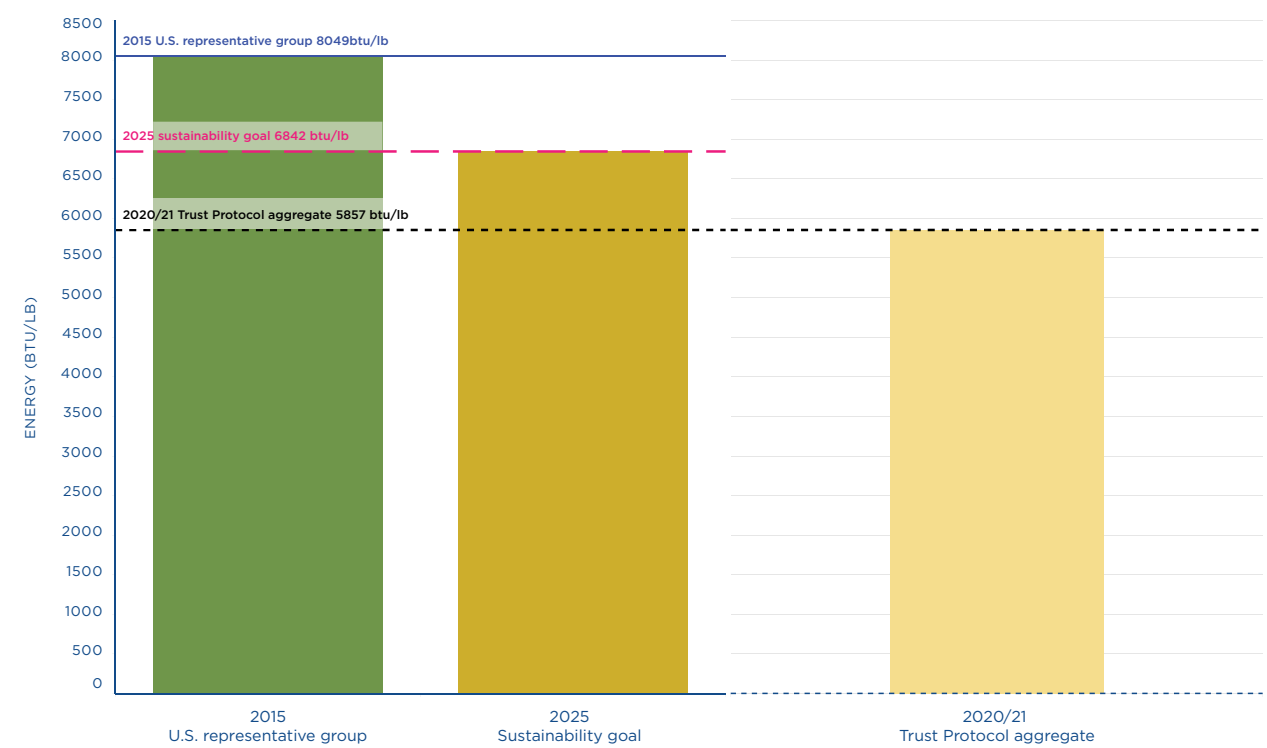
## Energy Use

The energy use indicator was developed to provide a consistent method for evaluating the efficiency of energy used in a farm operation. The energy use metric calculates all energy used in the production of one crop in one year from pre-planting activities to post-harvest activities. The indicator includes the major energy-intensive areas of on-farm crop production. It includes direct diesel fuel use for operation of farm equipment, electricity for pumping irrigation water, and electricity and natural gas for ginning. Also included are the indirect or embedded energy use from fertilizer mining, production and transport and crop protectant manufacturing<sup>8</sup>. Farm input information such as yield of the crop, irrigation for the crop, fuel used for farm

operations, embedded energy of plant health products, and fiber ginning, are provided to the greenhouse gases, regulated emissions, and energy use in transportation (GREET) model for calculating total energy consumption on the farm. The energy use indicator is represented in units of energy using British thermal units, btu/lb.

In 2020/21 the U.S. Cotton Trust Protocol grower member aggregate (Figure 5) was 5,857 btu/lb, over the 2015 U.S. representative group average of 8,049 btu/lb. Trust Protocol grower members efficiently reduced energy use, showing improvement against the 2025 sustainability goal of 15% reduction.

**Figure 5:** 2015 U.S. representative group and 2020/21 U.S. Cotton Trust Protocol aggregate with 2025 sustainability goal for energy use in btu/lb



<sup>8</sup> Environmental and Socioeconomic Indicators for Measuring Outcomes of On-Farm Agricultural Production in the United States. (2016, December). [Field to Market](#).



## Greenhouse Gas Emissions

The greenhouse gas (GHG) emissions indicator shares the same boundaries of calculations as the energy use indicator and utilizes much of the same sources of data. GHG is a measure of emissions associated with production (pounds of carbon dioxide equivalent (CO<sub>2</sub>e) per unit of production). GHG emissions are calculated from three different sources – energy use, nitrous oxide, methane emissions from soils and emissions from residue burning. Energy use is directly proportional to the GHG emissions, and they use similar data inputs on the farm operations. Nitrous oxide is a GHG with a global warming potential of 296 times that of CO<sub>2</sub>. Nitrous oxide released from soil microbial activity in association with fertilizer nitrogen application is an important source of emissions. However, the range of estimates for nitrous oxide as a percent of the nitrogen applied is very wide depending on the source of nitrogen, the method of application,

and the soil conditions at the time of application. Cotton does not emit methane emissions from soils as mostly the gas is produced by anaerobic bacteria in anoxic growing conditions like rice production and cotton growers only burn the residue in occasional practice. Daycent model by the Natural Resource Ecology Laboratory is used to calculate the GHG emissions output metric considering energy use and nitrous oxide emissions from soil.

The 2025 sustainability goal for GHG emissions is a reduction of 39%. The 2020/21 (Figure 6) Trust Protocol grower member aggregate for GHG emissions per pound of fiber is 1.8 CO<sub>2</sub>e. Relative to the 2015 representative group, 2020-21 Trust Protocol grower members showed improvement by reducing GHG emissions by 25% towards the path to reach the 2025 sustainability goal.

**Figure 6:** 2015 U.S. representative group and 2020/21 U.S. Cotton Trust Protocol aggregate with 2025 sustainability goal for GHG emissions in lb.CO<sub>2</sub>e/lb. of fiber



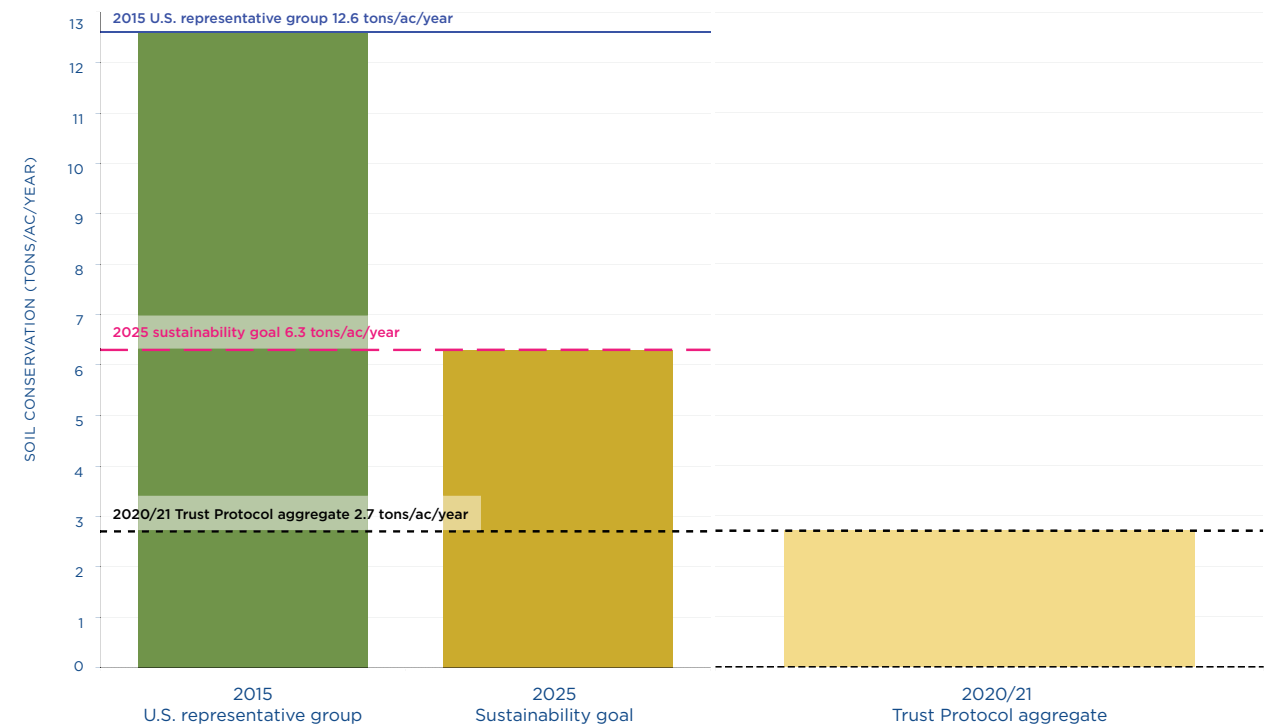
## Soil Conservation

Soil health is a high priority for Trust Protocol grower members as healthy soils aid in retaining more water thereby reducing the amount of runoff, sediment, and erosion in the fields, increasing both farm and land productivity. Soil conservation (net soil loss) is a measure of soil lost due to erosion from water and wind and is reported as tons of soil lost per acre per year.<sup>6</sup>

Simulated by USDA/NRCS data, the revised universal soil loss equation (RUSLE2) is used to account for water erosion and the wind prediction system equation (WEPS). Components that impact this metric are field operations such as tillage practices, crop residue, crop rotation, crop type, type of irrigation system, field physical features such as tile drains, terraces,

and wind barriers. In addition to field operations, climate data along with soil slope, length and soil properties are downloaded from a national cloud database of nearly every field in the United States into the RUSLE2 and WEPS models for determining the net soil loss due to wind to water erosion. 2015 U.S. representative group average soil loss was at 12.6 tons/ac/year and the goal is to reduce soil loss by 50% by 2025. The 2020/21 (Figure 7) Trust Protocol grower member aggregate for soil loss was 2.7 tons/ac/year. 2020/21 Trust Protocol grower members have been efficient in reducing soil loss by 78% compared to the 2015 U.S. representative group and are adopting novel techniques to improve soil health thereby further increasing the efficiency to reduce soil loss.

**Figure 7:** 2015 U.S. representative group average and 2020/21 U.S. Cotton Trust Protocol aggregate with 2025 sustainability goal for soil conservation in tons/ac/year



<sup>14</sup> USDA/NASS QuickStats Ad-hoc Query Tool. (2021). [USDA](#).

<sup>5</sup> Environmental and Socioeconomic Indicators for Measuring Outcomes of On-Farm Agricultural Production in the United States. (2016, December). [Field to Market](#).

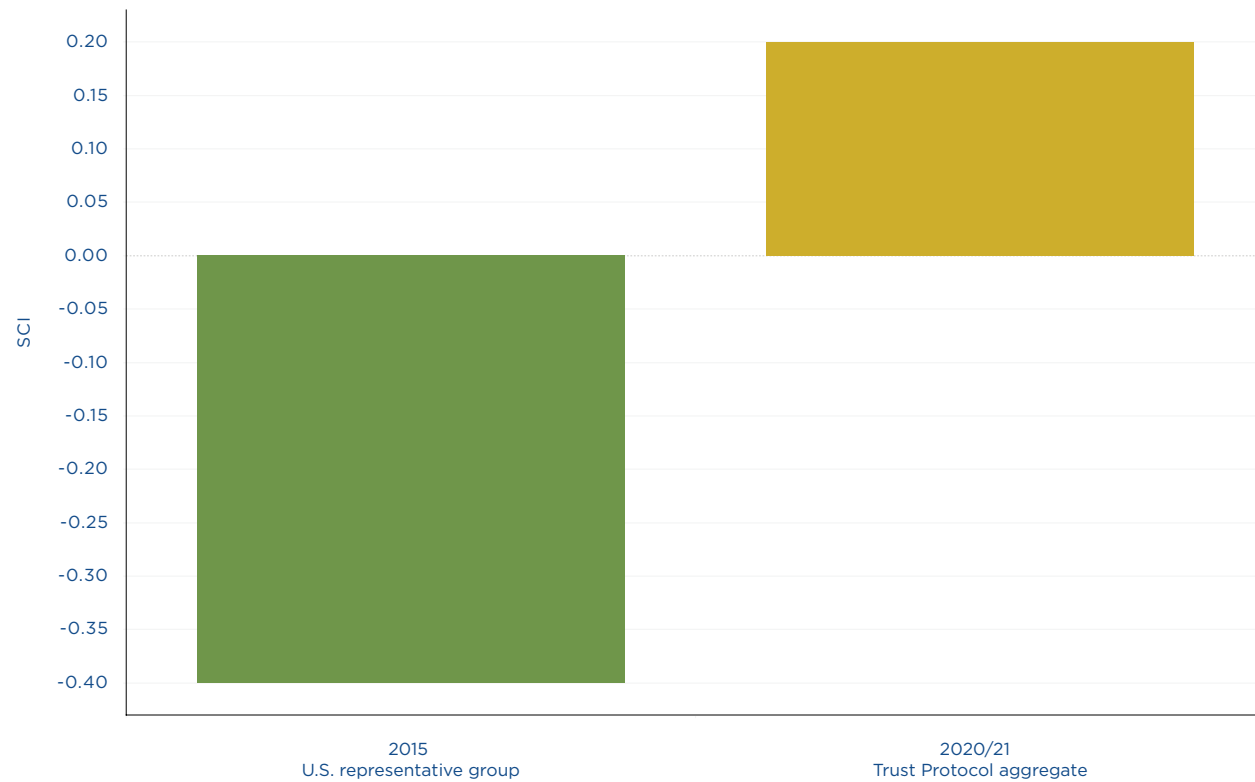


**Soil Carbon**

Soil carbon is important in supporting water infiltration, water and nutrient holding, crop productivity, and carbon storage. Due to the difficulty in quantifying the amount of change in soil carbon in a single year, the Fieldprint Calculator utilizes a qualitative and directional measure of soil carbon. The soil carbon metric utilizes a USDA NRCS tool, the Soil Conditioning Index (SCI), which is also a direct representation of practices that improve soil organic matter.

SCI index ranges from -1.0 to +1.0. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system and if the index is positive value, soil organic matter levels are predicted to increase. The Trust Protocol target is to focus on 30% of grower members to be in positive SCI improvement (Figure 8) by 2025. 2015 representative group average for SCI was -0.4 while the Trust Protocol member growers were at 0.2 indicating soil health improvement. In 2020/21, 66% of Trust Protocol grower members had a positive index value, meaning the soil health is well maintained.

**Figure 8:** 2020/21 U.S. Cotton Trust Protocol average for SCI (Soil Conditioning Index)



<sup>6</sup>Environmental and Socioeconomic Indicators for Measuring Outcomes of On-Farm Agricultural Production in the United States. (2016, December). [Field to Market](#).





## SOCIAL

All data under the social aspect is analyzed using the self-assessment questionnaire responses submitted by Trust Protocol grower members.

### The responses comprise of five possible outcomes:

- (1) I am in compliance (on required questions),
- (2) I do now on most of my fields,
- (3) I am implementing on one or more fields,
- (4) I will consider in next three years,
- (5) Not appropriate for my farming operations/ Not applicable.

Under worker well-being there are 12 Trust Protocol criteria captured in the 25 questions in the self-assessment questionnaire - 20 of which are mandatory practices for farmers to comply in order to qualify as a Trust Protocol grower member, and five of which are recommended practices.



## Worker Well-being

### Criteria 1: Workers are treated fairly.

**Required practices:** In the United States, the Fair Labor Standards Act (FLSA) mandates a minimum wage, breaks for meals and rest, and forbids child labor and involuntary servitude. In addition, most U.S. states have enacted legislation requiring minimum wage to be equal to the federal minimum wage level. The act applies to both full-time and part-time workers. The Trust Protocol is aligned with all required practices by law.

Under the U.S. Department of Labor, the Migrant and Seasonal Agricultural Worker Protection Act provides protection of seasonal or temporary agricultural workers by mandating the employer for disclosing in writing or orally mentioning the wage rates, housing, transportation and working conditions. 70% of Trust Protocol grower members (Figure 9) complied while 30% of the growers answered not applicable as their farming

operations did not hire any migrant workers. 53% of the Trust Protocol grower members answered not applicable for housing for temporary labor and seems likely that the majority of the farms have full-time employees and are family-owned operations. The 2012 Census of Agriculture reported 89% of the cotton farms were owned by family and partnerships within the family.

According to the Equal Employment Opportunity Commission (EEOC), harassment is a form of employment discrimination. Trust Protocol membership strictly prohibits use of corporal punishment, sexual harassment, and any form of verbal/physical abuse.

**Recommended practices:** Testing drinking water used by family and farm workers had responses of 59% of Trust Protocol grower members are doing on most of the fields, 19% will be practicing it in next 3 years and 22% responded not applicable probably because of sole proprietorship.

**Figure 9:** 2020/21 percentage of grower's responses on recommended practice under the criteria-workers are treated fairly





**Criteria 2: Wages are equal to or higher than required by law are provided.**

**Required practices:** The Trust Protocol requires grower members follow the minimum wage to be equal to the federal minimum wage level.

**Criteria 3: Working hours comply with national and state law.**

**Required practices:** Occupational Safety and Health Act (OSHA) rules require that hazardous activities be prohibited for minors, and the farm must follow state laws governing night-time labor.

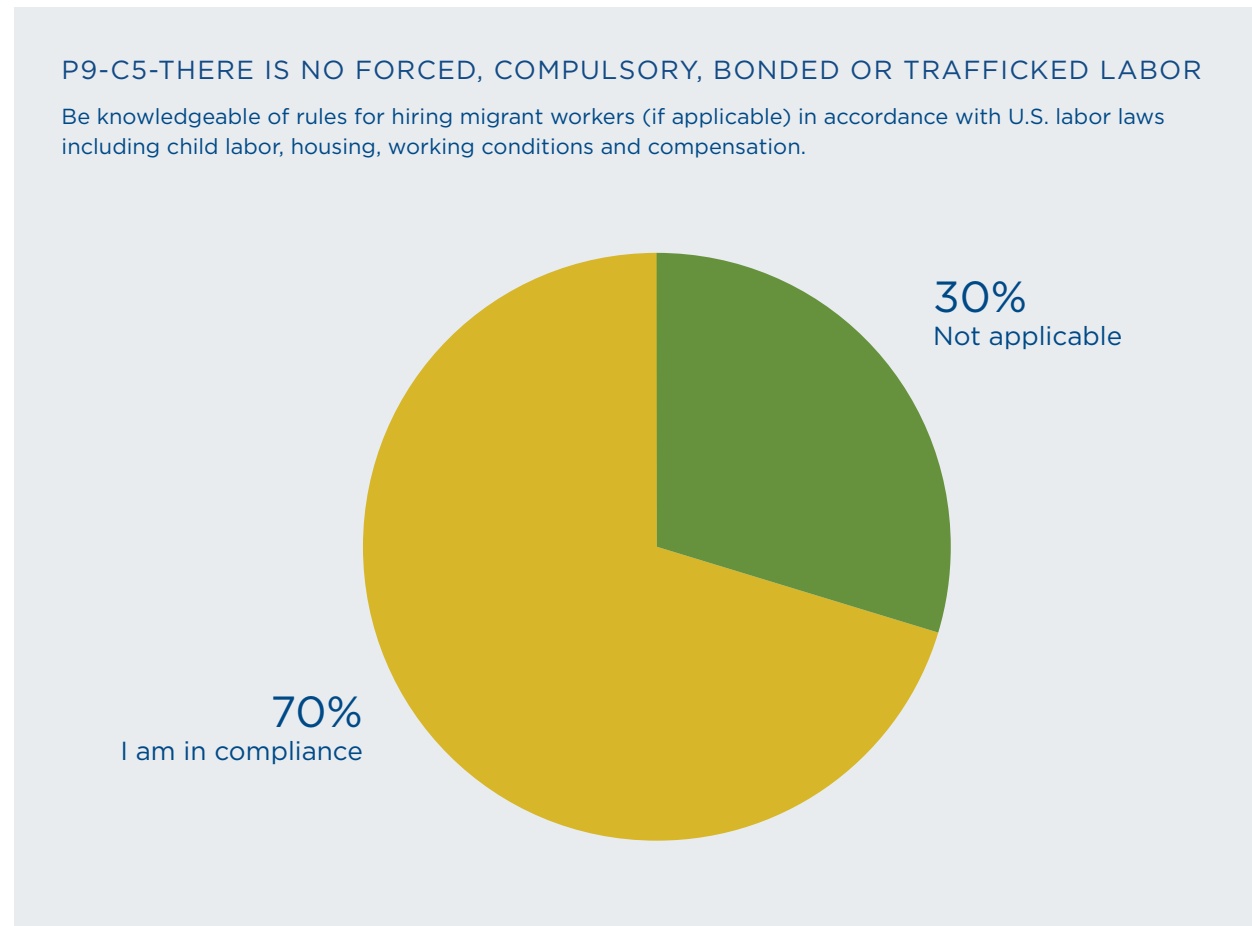
**Criteria 4: Children are not exploited in any form.**

**Required practices:** The Trust Protocol is in alignment with the International Labor Organization on child labor and forbids all forms of exploitation. There must be no workers employed below the minimum age for employment defined by law.

**Criteria 5: There is no forced, compulsory, bonded or trafficked labor.**

**Required practices:** The Trust Protocol prohibits all forms of forced labor or forced prison labor on the farm. 30% of Trust Protocol grower members responded to not applicable as they do not hire any labor and are family-owned farms managed explicitly by the family members (Figure 10).

**Figure 10:** 2020/21 percentage of Trust Protocol grower members in compliance with recommended and required practices under the principal worker well-being.





**Criteria 6: Workplace is kept safe by minimizing hazards.**

Includes both required and recommended practices, explained under the Farm safety principle.

**Criteria 7: Discrimination of all forms is forbidden.**

**Required practice:** The U.S. Equal Employment Opportunity Commission (EEOC) enforces federal laws prohibiting discrimination against an employee during a variety of work situations including hiring, firing, promotions, training, wages, and benefits. Trust Protocol grower members are required to take measures such as posting EEOC placards and posters in common areas to advise of the policy to prevent all forms of discrimination in the workplace and advise of grievance procedures.

**Criteria 8: Equal wages are paid to workers who perform the same job, regardless of gender, race, or ethnicity.**

**Required practice:** This criterion requires Trust Protocol grower members abide by the laws enforced by the EEOC to prohibit employers from paying employees differently based on race, color, gender, and national origin.

**Criteria 9: Safe and hygienic sanitation is accessible.**

**Required practice:** The Trust Protocol requires farm owners/employers to provide employees access to sanitation, consisting of drinking water, toilet, and handwashing facilities.

<sup>11</sup> Environmental and Socioeconomic Indicators for Measuring Outcomes of On-Farm Agricultural Production in the United States. (2016, December). [Field to Market](#).

**Criteria 10: Potable drinking water and wash-water are provided.**

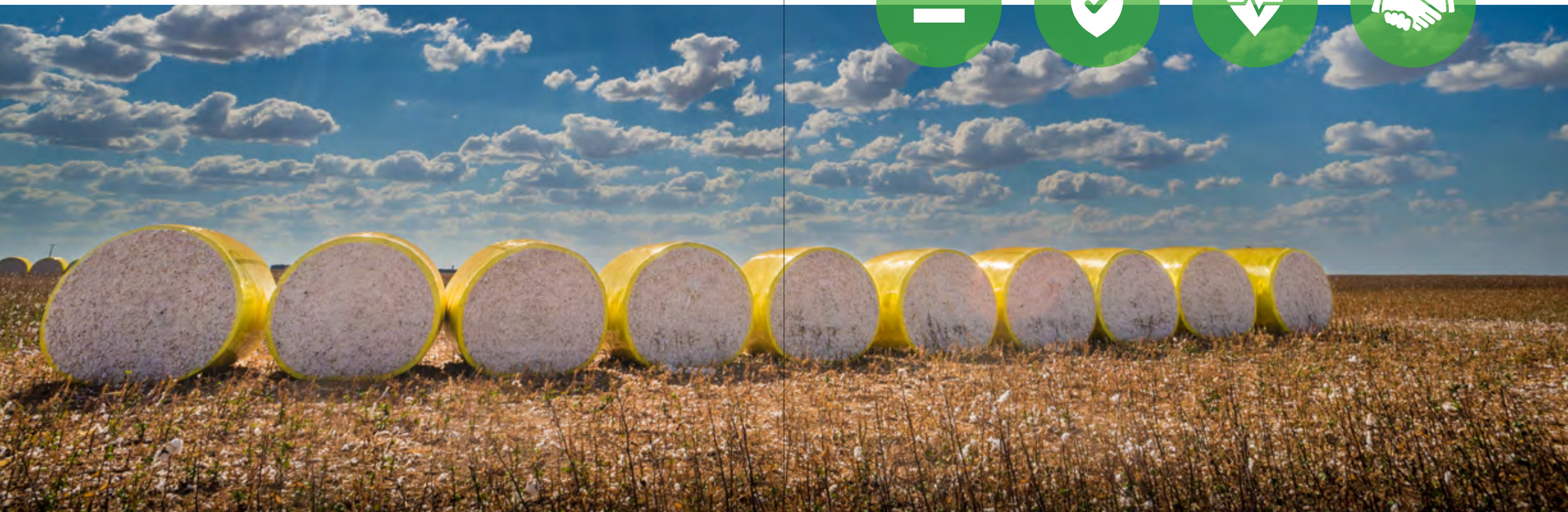
**Recommended practice:** In the U.S., rural drinking water comes from artesian sources naturally filtered by sand and gravel deep underneath the earth's surface and is recognized as safe. However, as a precautionary measure against inadvertent contamination, Trust Protocol grower members are recommended to test the drinking water used by family and farm workers periodically to assure bacteria, nitrate, and other pollutants do not exceed safe levels. Testing drinking water used by family and farm employees received a response of 59% while 19% responded they would do it in the next three years, and 22% of the grower member's farms were not applicable likely due to sole owner/operator of the farms (Figure 9).

**Criteria 11: Workers have freedom of associations.**

**Recommended practice:** The Trust Protocol grower members guarantee that workers/employees have the freedom to create or join organizations of their own choosing, and that there is no management interference with the ability of workers to bargain collectively.

**Criteria 12: Abuse or harassment of any kind is not tolerated.**

**Recommended practice:** Harassment is a type of workplace discrimination, according to the EEOC. It is forbidden to employ corporal punishment, sexual harassment, or verbal/physical abuse.







## SOCIAL

### Farm Safety

Farms are becoming more advanced each day as they are quickly adopting new technologies and updating machinery and equipment in order to increase their production capabilities. The Trust Protocol requires farm infrastructure to be kept safe for workers, farm animals and the environment.

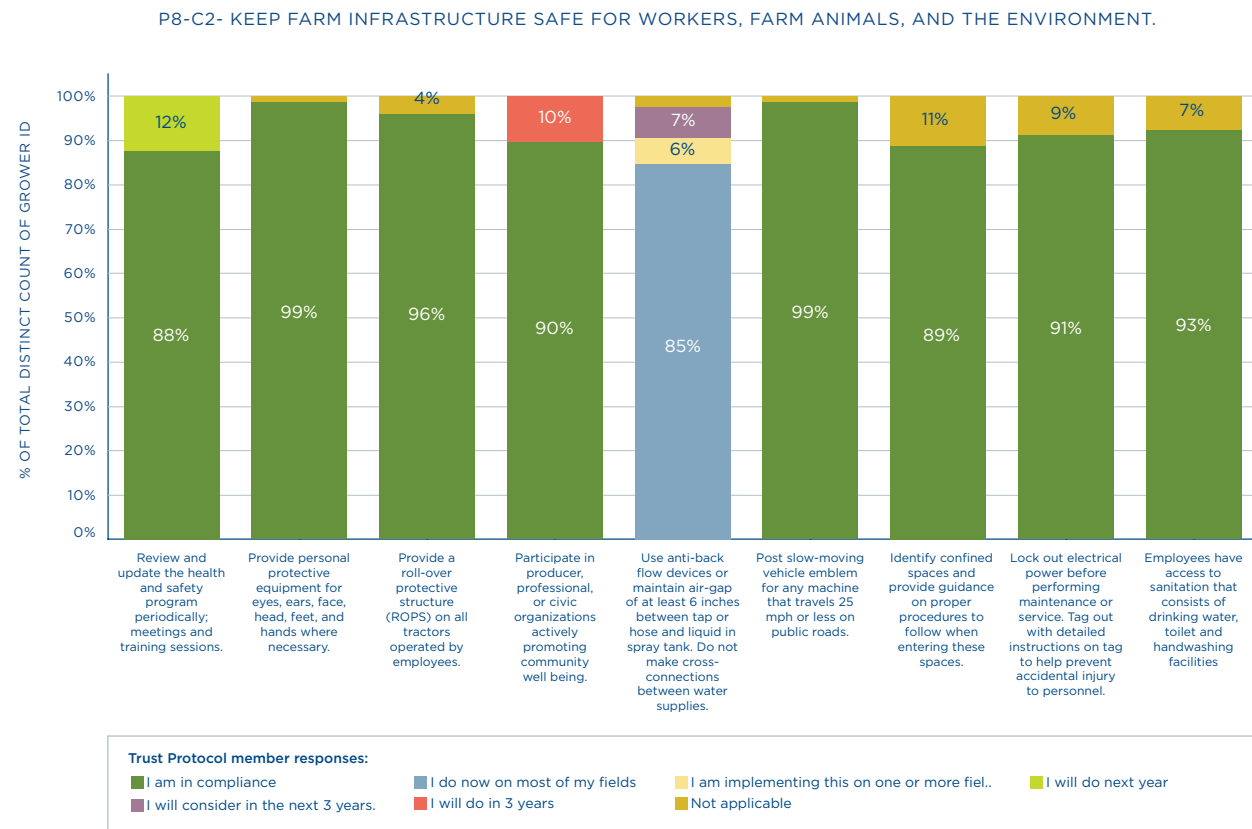
**Required practice:** In 2020/21 Trust Protocol grower members were in compliance with the following practices:

- a. Working to assure on-farm disposal sites are in compliance with state and local regulations.
- b. Triple rinsing all jug, bottle or bucket pesticide containers and encourage supplier of totes to rinse totes or take other measures to minimize exposure to workers or the environment.
- c. Securing all pesticides during transportation and ensuring they do not encounter human or animal food, clothing, bedding, toiletries or similar items.
- d. Reading labels and following any local ordinances on disposal of pesticide containers.
- e. Maintaining safety guards and/or shield on farm equipment.
- f. Locating above-ground petroleum storage tanks at a minimum of 25 feet from any source of ignition or propane source.
- g. If applicable based on storage volume, providing dikes for petroleum tanks to hold 110% of tank volume.
- h. If applicable based on storage volume, maintaining emergency hazardous spill plan (Spill Prevention Control and Counter measures plan requirements or other regulatory requirements).
- i. Ensuring that accident and emergency procedures, including first aid kits and access to appropriate transportation to medical facilities, are in place.
- j. When required for a specific restricted use pesticide, including Highly Hazardous Pesticides, employing closed application and delivery systems and product-specific mitigation as mandated on label, to prevent exposure of workers and operators, spills and environmental exposure.
- k. Using only crop protection materials registered and approved by the EPA and state regulators.
- l. Following label and using directions of crop protection products, and only on the crops specified.
- m. Obtaining necessary permits, licenses, and training for the application of crop protection products.
- n. Communicating information to employees on hazardous chemicals through labels, safety data sheets (SDS), and training programs as well as a written hazardous communication program and recordkeeping.
- o. Complying with regulations applicable to agricultural operations under OSHA as well as EPA worker protection standards and other appropriate regulations.
- p. Complying with Worker Protection Standard regarding protective clothing, posting, restricted re-entry intervals, and training.
- q. Using enclosed cabs on all ground boom application equipment for restricted use pesticides.
- r. Providing regular employee educational programs dealing with farm safety, pesticide handling and on-farm environmental concerns.



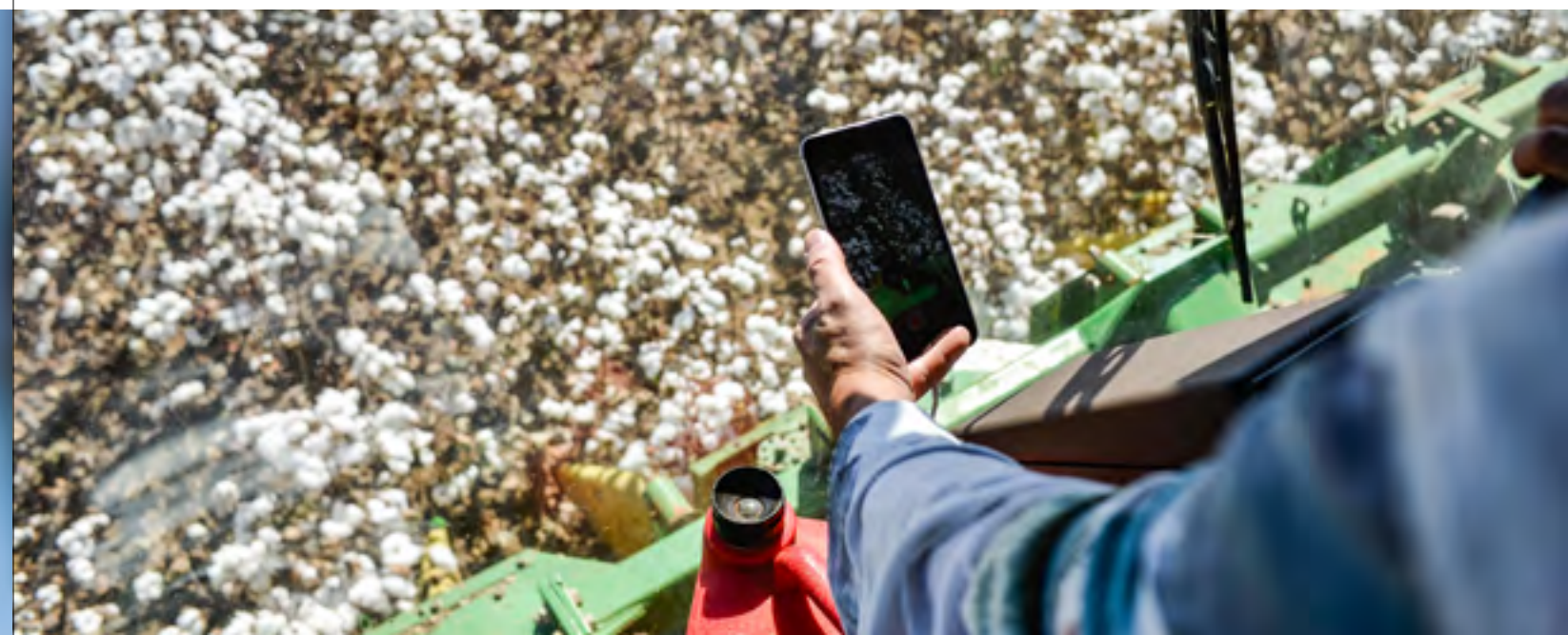
**Recommended practice:** Trust Protocol recommends grower members keep the farm safe by adopting the following practices (Figure 11):

**Figure 11:** 2020/21 percentage of growers in compliance with recommended practice under the principle of farm safety



- Reviewing and updating the health and safety of the program periodically and conducting periodic meetings and training sessions for the workers. 88% of the Trust Protocol grower members adopted this practice while 12% have committed to conduct periodic training and review in next year.
- Providing Personal Protective Equipment (PPE) for eyes, ears, face, head, feet, and hands where necessary. PPE is worn to minimize exposure to hazards that cause serious workplace injury and illness. 99% of Trust Protocol grower members were in compliance.
- Provide a roll-over protective structure (ROPS) on all tractors operated by employees. ROPS are metal bars, frames, or crush proof cabs that are designed to provide a protective zone around the tractor operator in the event of a roll over or overturn. 96% of Trust Protocol grower members were in compliance and 4% opted for not applicable.
- Participate in producer, professional, or civic organizations actively promoting community well-being. 90% of Trust Protocol grower members participated and actively promoted community well-being and 10% will participate in community activities in the next three years.
- Use anti-backflow devices or maintain airgap of at least 6 inches between tap or hose and liquid in spray tank. Anti-backflow devices help prevent water being contaminated by allowing it to flow in one direction. 91% of Trust Protocol

- grower members are currently using anti-backflow devices, 7% will start using in next three years, and 2% reported as not applicable to their farming practice.
- Post slow-moving vehicle emblem for any machine that travels 25 mph or less on public roads. 99% of Trust Protocol grower members posted emblems for a slow-moving vehicle on roads.
- Identify confined spaces and provide guidance on proper procedures to follow when entering these spaces. 89% of Trust Protocol grower members embraced this practice and 11% responded as not applicable.
- Lock out electrical power before performing maintenance or service. Tag out with detailed instructions on tag to help prevent accidental injury to personnel. 91% of Trust Protocol grower members followed this recommended practice and 9% of grower members reported not applicable due to not performing any maintenance or services in their own farm instead taking it to a shop.
- Employees have access to sanitation that consists of drinking water, toilet and handwashing facilities. 93% of Trust Protocol grower members were in compliance and 7% responded not applicable as all farms do not have employees and mostly they are family owned where houses are next to the farms and used as offices.





## REGENERATIVE AGRICULTURE AND PRACTICES

Regenerative agriculture describes farming and grazing practices that, among other benefits, reverse climate change by rebuilding soil organic matter and restoring degraded soil biodiversity – resulting in both carbon drawdown and improving the water cycle<sup>12</sup>. Regenerative agriculture is a holistic philosophy that aims to positively influence bio-sequestration, biodiversity, ecotoxicity, climate resilience, water systems, micronutrients, and ecosystem service. Regenerative agriculture is not a one size fits all prescriptive practice, rather it looks at the combination of practices that support resilience as well as builds and nourishes our ecosystem. When the regenerative practices are implemented successfully, the health of the agriculture ecosystem and farmer economic stability can be improved.

Regenerative practices usually address a single element or set of practices within the system. Over time, regenerative practices can increase productivity and naturally reduce the need for external inputs required for plants. Common regenerative practices include no or low till plowing, cover cropping, multi-use systems, biodiversity, rotational farming, precision agriculture, integrated pest management, and intentional use of inputs that are landscape specific.

<sup>12</sup> [Regeneration International](#)



### Conservation Tillage

Tillage practices heavily influence soil health in ways impacting both long run productivity and environmental outcomes, such as carbon sequestration and nutrient run-off. Tillage is defined by the amount of crop residue left on the ground. Three different types of tillage are adopted in cotton cultivation across the U.S.

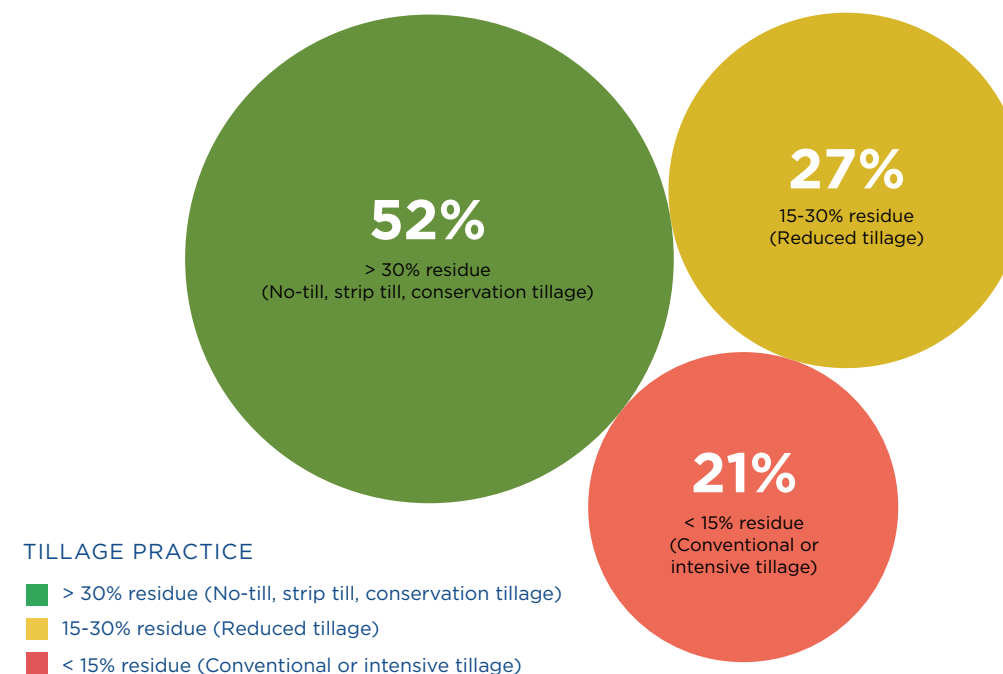
- a. Conventional tillage – incorporates most of the crop residue into the soil and has less than 15% residue cover on the ground
- b. Reduced tillage – residue cover on the ground is usually between 15% to 30%. It is a hybrid approach between conventional tillage and no-tillage practice
- c. No-tillage – avoids any mechanical tillage of the soil and attempts to keep soil disturbance to an absolute minimum (one of the main principles of regenerative agriculture) and the ground residue is usually more than 30%

In 2020/21, 52% of Trust Protocol grower members adopted no-till practice followed by 27% for reduced tillage and 21% exercised conventional tillage (Figure 12).

Continuous reduced or no-till production practice increases the amount of soil organic matter near the soil surface. Potential benefits of soil organic matter are improved soil aggregation, enhanced structural stability, increased cation exchange capacity (CEC), and water holding capacity. 79% of Trust Protocol grower members adopted conservation tillage and the average SCI index was 0.5 indicating greater confidence that soil carbon is increasing. 21% of the Trust Protocol grower members adopted conventional tillage and the average SCI was -0.4, representing negative index levels where soil organic matter levels are predicted to decline under the current production system. Soil loss is reported by calculating erosion due to water and wind. Conservation tillage is the most effective means of maximizing soil cover, improve water infiltration and minimize run-off. In 2020/21, Trust Protocol grower members reported no-till net soil loss average of 1.0 tons/ac/year, reduced till net soil loss with an average of 4.0 tons/ac/year, while conventional tillage was an average of 23 tons/ac/year net soil loss.

**For more details on regenerative practices, contact the [Trust Protocol](#) to become a member.**

**Figure 12:** 2020/21 Trust Protocol grower members' tillage practices (indicated in color) percentages (indicated in label).



**TILLAGE PRACTICE**

- > 30% residue (No-till, strip till, conservation tillage)
- 15-30% residue (Reduced tillage)
- < 15% residue (Conventional or intensive tillage)



# 08: FINANCIAL OVERVIEW

2020 represented a launch year for the U.S. Cotton Trust Protocol with certain components of the overall program being in a developmental or pilot phase. As a result, initial membership dues represented only 1% of the total revenue for 2020 (Chart 1). Being a collaborative effort of the U.S. cotton industry, essentially all activities of the Trust Protocol were funded through support provided by the National Cotton Council, Cotton Council International, Cotton Incorporated, and the Cotton Board.

Industry support was comprised of direct contributions to the Trust Protocol, funding of outside sustainability consultants, contracts with a global communication company, IT development support, and in-kind staffing resources. As many as 50 staff from the four organizations contributed a portion of their time to the development and promotion of the Trust Protocol. While the cotton industry organizations will continue to provide support for the near term, membership dues and consumption fees are expected to emerge as the primary sources of revenue for the program.

Trust Protocol expenses are allocated across six primary activities: Grower Enrollment & Capacity Building; Supply Chain Enrollment & Engagement; Program Development; Program Assurance; Conferences & Travel; and General & Administrative. Promotion, engagement, and enrollment with textile supply chain companies – from yarn spinners to brands/retailers – constituted 39% of total expenses (Chart 2). Another 17% of expenses were devoted to outreach and enrollment of U.S. cotton producers. As a result, more than one-half of 2020 expenses were devoted to raising awareness about the program and enrolling new members.

21% of Trust Protocol expenses were devoted to program development activities, including IT developments to the Trust Protocol's web-based platform. Activities related to program assurance comprised 16% of total expenses. Among the items captured in this category are expenses for independent third-party verification of grower members, quality control and aggregation of grower member data, and interactions/alignment with global sustainability initiatives. General overhead and administration of the Trust Protocol accounted for 7% of total expenses, while expenses related to conferences and travel accounted for less than one-half of 1% of the total. In future years, conference and travel expenses are expected to constitute a larger percentage of the overall budget as travel and in-person conferences resume.

In 2021, the composition of income will be very similar to 2020 as the influx of membership fees are not expected until the beginning of calendar 2022. At that time, it is anticipated that the Protocol Consumption Management Solution – the platform that allows brands to track the use of Protocol Cotton fiber through the supply chain – will be fully operational. Overall expenses are also falling in line with the 2020 breakdown. In-person meetings and travel remain limited due to COVID restrictions.

Over a 3 to 5-year time horizon, operations of the Trust Protocol will be increasingly funded by membership dues and cotton consumption fees. For planning purposes, it is estimated that membership dues will provide 25-30% of overall revenue, with consumption fees constituting another 50-60%. Industry support and foundation grants will comprise the remaining income for the Trust Protocol.



# 09: CONCLUSION

The U.S. Cotton Trust Protocol had a strong first year. With the support of many partners and leading experts from across the world, we have created a science-based sustainability initiative that spans the textile supply chain.

Crucial to our success will be continuing to support our growers as they work towards the U.S. cotton industry's 2025 national goals and we will continuously measure our progress to ensure that our actions will lead to a smaller environmental footprint.

We will maintain our focus on innovation, working to understand the latest technologies and techniques to further our environmental goals -- and people, personal and corporate integrity will remain at the forefront of our activity.

Expanding the initiative also will be important to meeting brand and retailer demand. We are now at 950,000 bales of cotton coming into the system; we want to make that 3 million bales in 2021/22, our second year. We will also seek to enroll 50% of the cotton grown in the U.S. by 2025.

Enrolling new mills and manufacturers also will remain integral as will be encouraging more brands and retailers to come on board in order to benefit from more sustainably grown cotton that is based on a culture of authenticity, innovation and excellence.

As the Trust Protocol looks to the year ahead, we are encouraged by the changes we see around us - the growing appreciation of the urgency of our collective environmental challenge, the enthusiasm of people from all walks of life to play their part in leading more sustainable lives and the commitment of industry to lead change. Time, however, is of the essence.

The Trust Protocol will keep pursuing its ambitious agenda. We would like to thank everyone who has made our progress to date possible and look forward to the work and collaboration that lies ahead.

It is founded on rigorous environmental targets, aligned to the UN Sustainable Development Goals and is based on a robust data collection mechanism. It is a system that provides article-level transparency - a world-first in sustainable cotton fiber.

But our focus on continuous improvement, and the complexity of improving sustainability outcomes while also driving change in a global supply chain that has evolved over decades, means that there is much work to be done.

Achieving improved sustainability outcomes is a journey, and its success is dependent on many factors - from fostering collaboration and a collective sense of purpose, to delivering consistency across all activity that will drive change. We are also aware that the U.S. cotton industry, like many industries, must deliver this progress as demand increases.

The Trust Protocol remains steadfast in our commitments to more sustainable cotton production for people and the planet. From the vantage point of one year in, we can better recognize the potential challenges ahead, but we remain determined to deliver.



**TRUST IN A  
SMARTER  
COTTON  
FUTURE<sup>®</sup>**



U.S. COTTON  
TRUST PROTOCOL<sup>®</sup>



# 10: APPENDIX

## BRANDS AND RETAILERS

7th Street  
Aspired Consumer Enterprise Co., Ltd.  
CLONHADAS LTDA  
COLOR SIETE SAS  
D Byford Holdings Limited  
Dinggwagwa Natural Color Garment Co., Ltd.  
eoeo  
Fast Cotton (Beijing) Limited  
Gap Inc.  
Golden Bowl Co., Ltd.  
Guangzhou Zefu Medical Technology Co., Ltd.  
GUNZE LTD.  
Honyofan  
Jiangsu Cerulean Home Co., Ltd.  
Jiangsu Meiluo Hometextile Co., Ltd.  
Jiangsu Sidefu Textile Co., Ltd.  
Juan Pablo Martinez Sustainable Fashion  
Junior de Mexico S.A. de C.V. (OGGI JEANS)  
Kidsplanet  
les enphants Co., Ltd.  
Levi Strauss & Co.  
Maria Luisa Ortiz E.U.  
Nantong Meierya Textile Co., Ltd.  
Next  
Servicios Liverpool SA de CV  
Shanghai Konglong Home Technology Co., Ltd.  
Shanghai Meijy Brand Management Co., Ltd.  
Shanghai Nice Rice Garment Co., Ltd.  
ShangHai Septwolves Houseware Co., Ltd.  
T.M.G Co., Ltd.  
Target Corp  
Tesco  
Unionmade  
V.P.R.S. International Co., Ltd.  
Xiamen Nest Designs E-Commerce Co., Ltd.

## MILLS AND MANUFACTURERS

Advance Denim Co., Ltd.  
Ahmed Fine Textile Mills Limited  
AHMED ORIENTAL TEXTILE MILLS LIMITED  
Akcanlar Tekstil San. ve Tic. A.S.  
AKIN TEKSTIL A.S.  
AKP TEX  
Al Karam Textile Mills (Pvt) Ltd.  
Al Muqteet Textile Pvt. Ltd.  
Al Nasr Textiles Ltd

Algodonera Continental S.A.C.  
Algosemi S.A.C.  
Alok Industries limited  
ALTERA TEKSTIL VE AMBALAJ SAN. TIC. LTD. STI.  
Ambika Cotton Mills Limited  
Amer Cotton Mills (Pvt) Ltd.  
Amna Industries (Pvt) Ltd.  
Anqing Zhaofeng Printing& Dyeing Co.,Ltd.  
Apparel International, Inc.  
Aquarelle India Private Limited  
Aral Tekstil San. ve Tic. A.S.  
Arateks Tekstil San. ve Tic. A.S.  
Artistic Denim Mills  
Artistic Fabric & Garment Industries (Pvt) Ltd. (AGI DENIM)  
Artistic Milliners (Pvt) Ltd.  
Arvind Limited  
Asahibo Co., Ltd.  
Atesa Tekstil San. ve Tic. A.S.  
Atlantic Mills (Thailand) Co., Ltd.  
Ayabe Spinning Co., Ltd.  
Aztex Trading, S.A. de C.V.  
Aztlan Textil, S.A. de C.V.  
Azul Textil, S.A. de C.V.  
BAC GIANG LGG GARMENT CORPORATION  
Balsuyu Mensucat San. ve Tic. A.S.  
Bao Minh Textile & Garment Joint Stock Company  
Beijiang Vietnam Textile Co. Ltd.  
Beyteks Tekstil San. ve Tic. A.S.  
Bhanero Textile Mills Ltd.  
Bhaskar Industries (Pvt) Ltd.  
Biska Tekstil San ve Tic A.S.  
Black Peony Textile Co., Ltd.  
Blessed Textiles Ltd.  
Bonanza Knitting, S.R.L.  
Bossa T.A.S  
Bozkurtlar Tekstil San. ve Tic. A.S.  
Bros Eastern Co., Ltd.  
BROS MACAO COMMERCIAL OFFSHORE LIMITED  
BROTEX (VN) CO., LTD.  
Buhler Quality Yarns, Corp.  
Burtteks Tekstil San. ve Tic. A.S.  
BYR International (Shanghai) Co., Ltd.  
CAFA Corp. LLC  
CALIK DENIM TEKSTIL SAN. VE TIC. A.S.  
Cap Yarns LLC

Carolina Cotton Works, Inc.  
CELIKASLAN TEKSTIL SAN. VE TIC. A.S.  
Centexsa II  
Central America Spinning Works  
El Salvador, S.A. de C.V.  
Changzhou Qunda Textile Co., Ltd.  
Changzhou Tintin Textile Co., Ltd.  
Chia Her Industrial Co., Ltd.  
CHTC Dayao Textile Co., Ltd.  
Cia Industrial Nuevo Mundo S.A.  
CLAROTEX GUATEMALA, S.A  
CMT De La Laguna, S.A. de C.V. (Formerly Ropa Siete Leguas)  
Cofaco Industries S.A.C.  
Colhilados Ltd.  
COMERCIALIZADORA INTERNACIONAL JEANS S.A.S.  
Cone Denim Jiaxing  
Cone Denim Yecapixtla  
Confecciones Jumaco, S.A. de C.V.  
Confecciones Textimax S.A.  
CONTEMPORA FABRICS  
Cotswold Industries Inc.  
Cotton Knit S.A.C.  
CRC Textile Mills Ltd.  
Crescent Fibres Ltd.  
Crescent Textile Mills Ltd.  
C-SITE TEXPIA, S.A.  
Cute Dress Industry Ltd.  
Daenong Corporation  
Daenong Textile  
Daiwabo Co., Ltd.  
Denim Factory S.A.  
DENIM KUMASCILIK TIC VE SAN A.S.  
Denimatrix LLC  
Denimville SA  
Denizli Rateks Tekstil San. ve Tic. A.S.  
Desh garments Limited  
Dezhou Caishihe Textile Co., Ltd.  
Dezhou Huayuan Eco-Technology Co., Ltd.  
Diamond Fabrics Limited  
Din Textile Mills Ltd.  
Distribuidora de Ropa Viva, S.A. de C.V.  
DNM TEXTILE FOR SPINNING, WEAVING AND DYEING  
Dong Khanh Textile Corporation  
Dongguan Greatex (UPW-UD) Spinning Ltd.  
Dongguan Greatex (UPW-UT) Spinning Ltd.  
Dongguan New Jersey Textiles Co., Ltd.

Dongguan Senlin Textiles Limited  
Dongguan Yong Da Li Textiles Limited  
DONG-IL VIETNAM CO., LTD.  
Double Star Industry Co., Ltd.  
DTL Industrias S de RL de C.V.  
Eastern Spinning Mills Ltd  
Eight March Textile Company Limited  
Eins, S.A.  
Elcatex S. de R.L. de C.V.  
Elevate Textiles  
Elit Iplik Tekstil Tic. San. A.S.  
Ellcot Spinning Mills Ltd.  
ENPING KAM HING TEXTILE DYEING CO., LTD.  
Ensar Tekstil San. ve Tic. A.S.  
Envoy Textiles Limited  
Erdem Tekstil San. Ve Tic. A.S.  
Esquire Knit Composite Ltd.  
Fabricato S.A.  
Faisal Spinning Mills Ltd.  
Fakhruddin Textile Mills Ltd. (URMI Group)  
Far Eastern Industries (WuXi) Ltd.  
Far Eastern New Century Corporation  
Fashion Knit  
Fazal Cloth Mills Limited  
Fazal Rehman Fabrics  
Feng-ge International Development Co., LTD  
FILASUR S.A.  
Foshan Nanhai Deyao Textile Co., Ltd.  
Foshan Smart Fabric Textile Co., Ltd.  
Foundation Garments (Pvt) Ltd.  
Frontier Yarns, Inc.  
Fugou Chang Mao Textile Co., Ltd.  
Fujian Jintex Textile Co., Ltd.  
Fujian Newkartex Co., Ltd.  
Fujian Tianhe Textile Industry Co., Ltd.  
Galaxy Cotton Corporation  
Gama Textil, S.A.  
Gaotang Hongtai Textile Co., Ltd.  
Garment 10 Corporation Joint-Stock Company  
GDI GRUPO DIAMANTE INTERNACIONAL S.A. DE C.V.  
Ghazi Fabrics International Ltd.  
GHCL LIMITED  
Gildan Yarns USA LLC  
Global Dyeing Co., Ltd.  
Global Textiles, S.A.  
Gohar Textile Mills (Pvt) Ltd.

Grupo Industrial Miro, S.A. de C.V.  
Grupo Vivatex, S.A. de C.V.  
GTN/Patspin Group of Companies, Cochin  
GUANG ZHOU KAM HING TEXTILE DYEING CO., LTD.  
Gul Ahmed Textile Mills Ltd.  
GUNZE LIMITED  
GUNZE VIETNAM CO., LTD.  
Gurex Textile Co., Ltd.  
H. W. Textiles Company Limited  
Hakatex, PT.  
HAMBOYA BOYACILIK TEKSTIL SAN VE TIC AS  
Hamrick Mills  
Hangzhou Tianrui Printing & Dyeing Co., Ltd.  
Hanoi Textile and Garment Joint Stock Corporation  
Hansae Co., Ltd.  
Hansoll Textile Ltd.  
HASCEVHER TEKSTIL MADENI ESYA METAL SAN. TIC. A.S.  
Hebei Henghe Textile Technology Co., Ltd  
Hebei Spring Textiles Co., Ltd.  
Hela Clothing  
Henan Shengtai Haobang Textile Co., Ltd. (formerly Shengzhou)  
HILANDERIA DE ALGODON PERUANO S.A.  
Hilanderias de Exportación, S.A  
Hilera Textil, S.A.  
Hoa Tho Textile - Garment Joint Stock Corporation  
Honduras Spinning Mills, S.A. de C.V.  
Hong Kong Hengliang International Trading Co., Ltd.  
Huafang Co., Ltd.  
Huafu (Vietnam) Industrial Co., Ltd.  
Huamei Medical Technology (Henan) Co., Ltd.  
Hunan Dongxin Group Co., Ltd.  
Huong Sen Comfor Yarn Spinning Co., Ltd.  
Hussain Mills Ltd.  
Huzhou Shikibo Happiness Co., Ltd.  
Idrees Textile Mills Ltd.  
IHSAN Sons (Pvt) Ltd.  
Ijaz Apparel (Pvt) Ltd.  
Ilshin Spinning Co., Ltd.  
Ilshin Vietnam Co., Ltd.  
Il-teks Tekstil San. ve Tic. A.S.  
Indo Count Industries Ltd.  
Indus Dyeing & Manufacturing Company Limited

Indus Group of Companies  
Indus Home Ltd  
Indus Lyallpur Ltd.  
INDUSTRIA TEXTIL DEL PACIFICO S.A.  
Industrial Textil De Puebla, S.A. De C.V. (Formerly Tavex)  
Industrias Apparel  
Industrias Cannon de Colombia S.A  
Industrias Merlet, S.A. de C.V.  
INDUSTRIAS NETTALCO S.A.  
Industrias Unidas, S.A.  
Inman Mills  
INT, S.A.  
Iskur Denim Isletmeleri Tic. Ve San. A.S.  
ISKUR TEKSTIL SAN. VE TIC. A.S.  
Island Textile Mills Ltd.  
Ismail Spinning Mills Ltd.  
J. Pereira Fernandes II, SA  
J.P. Bosco Co., Ltd.  
J.W. TEXTILES, SOCIEDAD ANÓNIMA  
Jiangmen Xinhui Victory City Co., Ltd.  
Jiangsu Expert Textile Co., Ltd.  
Jiangsu Huacai Textiles And Garment Co., Ltd.  
JIANGSU YULUN TEXTILE GROUP CO., LTD.  
Jiangxi Danx Textile Co., Ltd.  
Jiangyin Fabric Technology Co., Ltd.  
Jiangyin Hengliang Textile Co., Ltd.  
Jihua 3509 Textile Co., Ltd.  
JIHUA 3542 TEXTILE CO., LTD.  
Jungwoo Textile Vina Co., Ltd.  
Jungwoo Vina Co., Ltd.  
Kai Ping Tat Fung Weaving, Dyeing, Printing & Garment Co., Ltd.  
Kaihara (Thailand) Co., Ltd.  
Kaihara Co., Ltd.  
Kakui Co., Ltd.  
Kam Hing Piece Works Limited  
Karacasu Tekstil Tic. ve San. A.S.  
Kassim Textiles (Pvt) Limited  
Keer America  
Khas Textile Mills Pvt Ltd  
Kimteks Tekstil Insaat Ticaret ve Sanayi A.S.  
Kipas Mensucat Tekstil Isletmeleri A.S.  
Knit Asia Ltd.  
Knitopia, Sociedad Anonima  
Kondo Cotton Spinning Co., Ltd.  
Kondo Textiles Vietnam Co., Ltd.  
Kongkiat Textile Co., Ltd.



Kukil Spinning Co., Ltd.  
 Kukil Vietnam Co., Ltd.  
 KURABO INDUSTRIES LTD.  
 KURABO INTERNATIONAL Co., Ltd.  
 Kyungbang Co., Ltd.  
 Kyungbang Vietnam Co., Ltd.  
 L.V.W Group Co., Ltd  
 Laboratorios Higietex  
 Longsel Textile Sci& Tech (Taicang) Co., Ltd.  
 Mahmood Textile Mills  
 Malek Spinning Mills Ltd.  
 Manufacturas Kaltex S.A. de C.V.  
 Manufacturas Qualy, S.A. de C.V.  
 Manufacturas Textiles Perfecta SA  
 Maral Overseas Limited  
 Maru Home Textile Co., Ltd.  
 Marusan Industry Co., Ltd.  
 Masood Spinning Mills, Ltd.  
 Masood Textile Mills Ltd.  
 Master Textile Mills  
 Matesa Tekstil Sanayi ve Ticaret A.S.  
 Mekotex  
 Mem Tekstil San. ve Tic. A.S.  
 MENDERES TEKSTIL SAN. VE TIC. A.S.  
 Mermaid Apparel Co., Ltd.  
 Mermaid Sewing Akita Co., Ltd.  
 Metco Textile (Pvt) Limited  
 Michigan Haiduong Co., Ltd.  
 Monnoo Group of Industries  
 MT Textil, S.A.  
 Nadeem Textile Mills Limited  
 Nafeesa Textiles Ltd.  
 Nagina Cotton Mills Ltd  
 Naigai Textile Ltd.  
 Nankai Tex Co., Ltd.  
 Nantong Huaiqiang Technology Co., Ltd.  
 Nantong Huaqiang Cloth Co., Ltd.  
 Nantong Keyword Textile Co., Ltd.  
 Nantong Tang Textile Co., Ltd  
 Narmada Spinning Private Limited  
 Narteks Tekstil San. ve Tic. A.S.  
 Naveena Exports Ltd.  
 NAVEENA INDUSTRIES LIMITED  
 Nazar Tekstil San. Ve Tic. A.S.  
 NB NAM PHUONG CO., LTD  
 Neela Blue  
 Nevres Tekstil San. ve Tic. A.S.  
 New Jersey Enterprises Limited  
 Nien Hsing International Victoria S.A.DE C.V.  
 Nien Hsing Textile Co., Ltd.  
 Nipas Tekstil San. ve Tic. A.S.  
 Nishat Chunian Group  
 Nisshinbo Textile Inc.  
 Nitin Spinners Limited  
 Nobland Co., Ltd.  
 Nobland Vietnam Co., Ltd.(NBVO)  
 Noman Composite Textile Ltd.  
 Noman Composite Textile Mills Limited  
 North Star Textiles

NRG Spinning Mills Limited  
 NZ TEXTILE LIMITED.  
 O.A, S.A. de C.V.  
 Ocean Lanka (Pvt) Limited  
 Ozdurak Tekstil San. ve Tic. A.S.  
 Pacific Textiles Holdings Limited  
 Pahartali Textile & Hosiery Mills  
 Pak Kuwait Textiles Ltd.  
 PangRim Co., Ltd.  
 PangRim Neotex Co., Ltd.  
 Panther Textiles Holding Co., Ltd.  
 Paramount Textile Mills P Ltd.  
 Parkdale Inc  
 Parras Cone De Mexico, S.A. De R.L.  
 De C.V. Mexico  
 Phong Phu Corporation  
 PHU BAI 2 SPINNING JOINT  
 STOCK COMPANY  
 Phu Gia Spinning Joint Stock Company  
 Phu Hoang Spinning Joint Stock Company  
 PILU UNIFORMES  
 Pingdingshan Changmao Textile Co., Ltd .  
 Playeras Mark S de R.L. de C.V.  
 PN Composite Ltd.  
 PRECOT LIMITED  
 Precotex S.A.C.  
 Premium Knits LLC  
 Premium Textile Mills Ltd.  
 Primayudha Mandirijaya  
 Prosperity Textile  
 Prosperity Weaving Mills Ltd.  
 PT. Bateeq Retailindo Utama  
 PT. Benang Citra Indonesia  
 PT. Bitratex Industries  
 PT. CIPTA DWI BUSANA  
 PT. Dan Liris  
 PT. Efrata Retailindo  
 PT. Eins Trend  
 PT. Embee Plumbon Textile  
 PT. Gokak Indonesia  
 PT. GUNUNG SALAK SUKABUMI  
 PT. Indo Raya Energi  
 PT. Indo-Rama Synthetics TBK  
 PT. Kewalram Indonesia  
 PT. Kondobo Textindo  
 PT. Kurabo Manunggal Textile Industries  
 PT. Lucky Print Abadi  
 PT. Mermaid Textile Industry Indonesia  
 (PT. Mertex Indonesia)  
 PT. Ocean Asia Industry  
 PT. Pan Brothers Tbk  
 PT. Plumbon International Textile  
 PT. Popular Daenong Indonesia  
 PT. Sari Warna Asli  
 PT. Sinar Pantja Djaja  
 PT. Sri Rejeki Isman, Tbk  
 PT. Tabor Andalan Retailindo  
 PT. Tantra Textile Industry  
 PT. Win Textile  
 PT. Yakjin Jaya Indonesia

PT. Yakjin Jaya Indonesia 2  
 PUKU VIETNAM CO.,LTD  
 Qilu Hongye Textile Group Company, Ltd.  
 Qingdao HFT Textile Co., Ltd.  
 Qingdao Jerid Textile Co., Ltd.  
 Qingdao Shunjia Textile Co., Ltd.  
 Quality Knits, S de RL de C.V.  
 Quang Da Spinning Joint Stock Company  
 RAMCO GROUP TEXTILE DIVISION  
 Receptor Industrial  
 Reliance Cotton Spinning Mills Ltd. Sapphire  
 Group  
 RGM Fashion Limited  
 Riaz Textile Mills Ltd  
 RJ Torres Manufacturing, SRL  
 Rocacotton Technology (Jiangsu) Co., Ltd.  
 S.A. Aanandan Spinning Mills (Pvt) Ltd.  
 S.B.T Apparels (Pvt) Ltd.  
 SAE-A Eins Inc.  
 SAE-A Spinning  
 Sae-A Technotex, S.A.  
 SAE-A Texpia ?  
 SAE-A Trading Co., Ltd.  
 Sahinturk Tekstil A.S.  
 SAIF TEXTILE MILLS LIMITED  
 Saif Textile Mills Ltd.  
 Saitex International Dong Nai (VN) Co., Ltd  
 Salek Textile Ltd.  
 SALFI TEXTILE MILLS LTD.  
 Samil Vina Co., Ltd.  
 Sanyang Textile Co., Ltd.  
 Sapphire Fibres Ltd  
 Sapphire Textile Mills Limited  
 Sayin Tekstil San. ve Tic. A.S.  
 Sea Island Club (Japan) Co., Ltd.  
 Sewang Textile Co., Ltd.  
 Sewang Vina  
 Shahkam Industries  
 Shandong Hongye Textile Co., Ltd.  
 Shandong Lanyan Textiles Co., Ltd.  
 Shandong Weilian Printing & Dyeing Co., Ltd.  
 Shanghai Lianfeng Textile & Garment Co., Ltd.  
 Shanghai Shikibo Home Textiles Co., Ltd.  
 Shangqiu Huifeng Cotton Co., Ltd.  
 SHIJIAZHANG CHANGSHAN EVERGREEN  
 I & E CO.,LTD.  
 SHIKIBO (H.K.) LTD.  
 SHIKIBO KONAN LTD.  
 SHIKIBO TRADING (SHANGHAI) CO., LTD.  
 Shikibo, Ltd.  
 SHINNAIGAI TEXTILE LTD.  
 Shinsung Tongsang  
 Shinwon Corporation  
 Show Win Industries Limited  
 Show Win Textiles Limited  
 Shri Vallabh Pittie Industries Limited  
 Shuford Yarns, LLC  
 SIAM KURABO CO., LTD.  
 Siara Textile Mill (Pvt) Ltd.  
 Sirikciler Tekstil San. ve Tic. A.S.

Sirikcioglu Mensucat San. ve Tic. A.S.  
 Sitara Chemical Industries Limited -  
 Textile Division  
 SJ JERSEY ECUATORIANO C.A.  
 Sky Lab Mills  
 Song Hong Garment JSC  
 Soorty Enterprises (Pvt) Ltd.  
 Southern Textile Network SAC  
 Sportking India Limited  
 Square Textiles Limited  
 Su Zhou Ao Zhi Bao Textile Co., Ltd.  
 Sumitex International Company Ltd.  
 Sunray International Holdings Ltd.  
 SUNRAY MACAO COMMERCIAL  
 OFFSHORE LIMITED  
 Sunrays Textile Mills Ltd.  
 Sunrise Knitting Mills Private Limited  
 Sunvim Group Co., Ltd.  
 SV Pittie Sohar Textiles (FZC) SAOC  
 Swisstex Direct, LLC  
 Taekwang Industrial Co., Ltd.  
 Tah Tong Textile (Vietnam) Co., Ltd.  
 Tah Tong Textile Co., Ltd.  
 Taihan Textile Co., Ltd.  
 Tainan Spinning Co., Ltd.  
 Tainan Spinning Co., Ltd. (Vietnam)  
 Tainan Textile Co., Ltd.  
 TAISHOBOSEKI Co., Ltd.  
 Talent Textiles Company Limited  
 Tat Fung Textile Co., Ltd.  
 Tata Textile Mills Ltd.  
 TCE VINA DENIM JOINT STOCK COMPANY  
 Teejay India Private Limited  
 Teejay Lanka PLC  
 Tennat, S.A.  
 Texhong (China) Investment Co., Ltd.  
 TEXHONG SPINNING NICARAGUA, S.A  
 (KARIMS) yarn broker: Karims  
 TEXIN, S.A. DE C.V.  
 TEXSON (CAMBODIA) KNITTING WASHING  
 DEYING & PRINTING CO., LTD  
 TEXTIL DEL VALLE SA  
 Textiles GRAN FE S.A  
 Textiles Marie Lou  
 Textiles Paraiso S.A.  
 Textiles San andres S.A. de C.V.  
 TEXTUFIL  
 Teymur Tekstil San. ve Tic. A.S.  
 Thai Industries Development Co., Ltd.  
 Thai Kurabo Co., Ltd.  
 THAIRUNG TEXTILE CO., LTD.  
 Thanh Cong Textile-Garment-Investment-  
 Trading Joint Stock Company  
 The Phiphatanakit Textile Co., Ltd.  
 The Willbes & Co., Ltd.  
 The Willbes Dominican Inc.  
 The Willbes Haitian, S.A.  
 Theparerg Co., Ltd.  
 Thien nam spinning  
 TKL Knits India (Pvt) Limited  
 Topy Top S.A.

Toyobo STC Co., Ltd.  
 Tra Ly Spinning Joint Stock Company  
 Trung Quy Co., Ltd.  
 TSC Textile Sourcing Company S.A.C.  
 Tuan Anh Trading And Production Investment  
 Joint Stock Company  
 Tuong Long Co., Ltd.  
 Tusa Maras Iplik Tic. ve San. A.S.  
 Tusa Ring Isletmeleri San ve Tic . A.S.  
 TX TEXWIN, S.A.  
 UGURLULAR TEKSTIL SAN. VE TIC. A.S.  
 UHM LTD  
 United Textile Mills Co., Ltd.  
 UPW Ltd.  
 Uspar Tekstil A.S.  
 Value Source Group Co., Ltd.  
 Vardhman Textiles Limited  
 Vertical Knits S.A de C.V.  
 Viet Hong Textile JVC  
 VIET TRI SPINNING JSC  
 Vina Korea Co., Ltd.  
 Vinatex Phu Cuong  
 Viyellatex Spinning Limited  
 Well Knit Trading Limited  
 Welspun India Ltd.  
 Whail Vina Co., Ltd. (formerly CONG TY  
 TNHH WHAIL)  
 Winnitex (Americas) Limited  
 Winnitex (Vietnam) Limited  
 Winnitex Limited  
 WT SOURCING PERU S.A.C.  
 Wugang Longshan Textile Technology  
 Co., Ltd.  
 X&L Fashion Limited  
 Xiajin County Tianrun Textile Co., Ltd.  
 Xiajin Ruixin Textile Co., Ltd.  
 Xindadong Textile Co., Ltd.  
 Xindadong Textiles (Vietnam) Co., Ltd.  
 Yakjin ( Cambodia ) Inc - 2  
 Yakjin ( Cambodia ) Inc  
 Yakjin Intertex Co., Ltd.  
 Yakjin Saigon Co., Ltd.  
 YAKJIN TRADING CORPORATION  
 Yakjin Vietnam Co., Ltd.  
 YAMACHU MENGYO CO., LTD.  
 Yasmin Spinning Mills Ltd.  
 Yixing Lucky Textiles Group Co., Ltd.  
 Young Shin Textile Co., Ltd.  
 YTC Corporation  
 Yulun (Vietnam) Spinning Weaving  
 Dyeing Co. Ltd.  
 Yunus Textile Mills Limited  
 Zaber & Zubair Fabrics Ltd  
 Zaber Spinning Mills Ltd.  
 Zagis, S.A. de C.V.  
 Zahidjee Textile Mills Ltd.  
 Zaman Textile Mills (Pvt) Limited  
 Zara Yartex Co., Ltd.  
 Zhangjiagang Talent Weaving Dyeing &  
 Printing Ltd.  
 Zhejiang Danx Industrial Co., Ltd.

Zhejiang Hangmin Keer Textile Co., Ltd.  
 Zhejiang Huabu Supply Chain  
 Management Co., Ltd.  
 Zhejiang Lucky Bird Textile Co., Ltd.  
 Zhejiang Qing Mao Weaving,  
 Dyeing & Printing Co., Ltd  
 Zhejiang Saintyear Textile Co., Ltd.  
 Zhengzhou Chenglin Textile Co., Ltd.  
 ZhongShan Hing Tak weaving and  
 dyeing Limited  
 Zubair Spinning Mills Limited

## MERCHANTS AND COOPERATIVES

ACG Cotton Marketing LLC  
 All-Cotton Trading Company  
 Allbright Cotton  
 Allenberg Cotton Co., Inc.  
 Autauga Quality Cotton Association  
 Calcot Ltd.  
 Cargill Cotton  
 Carolinas Cotton Growers Cooperative, Inc.  
 Choice Cotton Company, Inc.  
 ECOM USA, LLC  
 Farmers Cotton Of La, LLC  
 Handwerker-Winburne Inc.  
 J. G. Boswell Company  
 Jess Smith & Sons Cotton, Inc.  
 Loeb and Company, Inc.  
 Memtex Cotton Marketing, LLC  
 New Hope Agriservices  
 Olam Cotton  
 Omnicotton  
 Plains Cotton Cooperative Association  
 Staplcoth  
 Street Gin  
 Toyo Cotton Co.  
 Toyoshima  
 Viterra Agriculture USA LLC  
 West Gin, LLC  
 White Gold Cotton Marketing LLC

## INDUSTRY AND OTHER

Arizona Cotton Growers  
 Aspired Consumer Enterprise Co.,Ltd.  
 Black Belt Gin, Inc.  
 Create Me Technologies  
 Georgia Cotton Commission  
 ICAC  
 Knight Consulting Service  
 North Carolina Cotton Producers Association  
 Northwest Cotton Growers Coop, Inc.  
 Quail Forever  
 Rolling Plains Cotton Growers, Inc.  
 Soil Health Institute  
 Southern Rolling Plains Cotton Growers  
 Association  
 Texas Alliance For Water Conservation  
 The Cotton Board  
 Tri County Producers Coop  
 Truterra, LLC  
 UGA Extension Tift County



20/21

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