The U.S. cotton industry has made pivotal strides in continual improvement over the last 35 years, from reducing land and water use to mitigating soil loss and lowering energy use. With more and more brands making science-based targets to reduce their own environmental impacts, it is time for the next phase of cotton sustainability improvements.

The U.S. Cotton Sustainability Task Force adopted six science-based goals to be met within the next 10 years that will help drive continual improvements and reduce the industry’s environmental footprint. For example, when the cotton industry reduces greenhouse gas emissions, brands sourcing this cotton will have a reduced scope 3 emission, helping them meet their sustainability goals as well.
1 Increase Soil Carbon by 30%
More soil carbon generally means healthier soils. Implementing reduced and no tillage practices and using cover crops (crops grown in the winter between cotton harvest and planting) are some of the best ways to increase soil carbon. When cotton producers increase soil carbon and health, they are practicing regenerative agriculture and improving the land they farm.

2 Increase Land Use Efficiency by 13%
The population is soaring, which makes producing more cotton on less land more important than ever. We’ve seen increases in land use efficiency by introducing better genetic varieties, reducing water usage, and improving soil health and irrigation technologies.

3 Decrease Greenhouse Gas Emissions by 39%
Cotton naturally removes CO₂ (carbon dioxide) from the air; however, fertilizers and other cultivation practices emit greenhouse gases (GHG). To lower these GHG emissions, producers can adopt low and no-till cultivation and/or incorporate the “4R concept” of applying:
• the Right fertilizer source,
• at the Right rate,
• at the Right time,
• in the Right place.
By following this concept, GHG emissions are reduced while still producing a high yielding crop.

4 Decrease Soil Loss by 50%
It’s no secret that excess soil loss can lead to environmental degradation. The use of cover crops and conservation tillage, however, has shown to significantly reduce soil loss. Two thirds of U.S. cotton producers use reduced or no tillage practices today. Increasing the adoption of these practices will keep more soil on the field — where it belongs.

5 Decrease Water Use by 18%
While cotton is inherently tolerant to drought, like any plant, it still requires water to survive. Increasing water-use efficiency (WUE) has allowed growers to do more with less water. Implementing better water delivery systems and improved irrigation scheduling tools can increase yields without increasing water usage.

6 Decrease Energy Use by 15%
In the 1980s, growers started reducing their energy expenditures through reduced tillage and reduced nitrogen applications per pound of fiber. Increased adoption of the 4Rs nutrient management concept and increased adoption of reduced tillage will help that trend continue and meet the energy reduction goal.

The industry improvements are to be met by 2025 and will be measured using Field to Market’s National Indicators Reports, which analyze trends over time in sustainability performance for U.S. commodity crop systems by leveraging data from the United States Department of Agriculture (USDA).

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