

Principles and Criteria



U.S. COTTON
TRUST PROTOCOL[®]
Trust in a smarter cotton future

Principle 1: Soil Health

Use production practices that conserve and regenerate soil

Criteria

1. Minimize soil erosion through mechanical and conservation practices in consideration of topography, soil type, rainfall, wind, and mechanical and conservation practices.
2. Identify areas classified as highly erodible and implement an approved Natural Resources Conservation Service (NRCS) plan as appropriate.
3. In accordance with NRCS guidance, avoid planting on land converted from wetlands after 1985 and avoid conversion of new wetlands.
4. Use practices known to increase soil biodiversity.
5. Use soil health-building practices known to increase soil organic content, enhance soil texture, and facilitate water infiltration and soil-water holding capability.
6. Employ soil protection practices with the goal of continuous improvement to balance soil loss with soil regeneration.

Principle 2: Nutrient Management

Maintain healthy plants through nutrient management practices that minimize environmental emissions

Criteria

1. Maintain a nutrient management plan to:
 - a. Enhance soil fertility.
 - b. Continuously improve nutrient cycling.
 - c. Monitor soil nutrients and pH.
 - d. Replace nutrients based on the amount removed by previous crop harvests.
 - e. Apply precise nutrient amounts to avoid over application.
 - f. Apply nutrients from appropriate sources.
 - g. Time nutrient applications as close to the crop-needs as possible.
 - h. Place nutrients in appropriate proximity to roots to be readily available for plant uptake.
 - i. When using animal manure pay special attention to the ratios of primary nutrients to avoid excess phosphorous or potassium which could be a cause of eutrophication.
2. Use application practices that minimize nutrient runoff into water bodies.
3. Use appropriate storage of fertilizers including manure to prevent leaching and runoff.

Principle 3: Water Management

Promote water stewardship

Criteria

1. Maintain a water management plan to:
 - a. Employ practices that maximize efficient use of natural rainfall.
 - b. Employ soil health-building principles that increase soil organic content and optimize soil water holding capacity.
 - c. Where supplemental irrigation is needed, use efficiently, and calibrate corresponding to crop needs.
 - d. Schedule irrigation timing in accordance with crop physiological needs.
 - e. Promote measures to minimize runoff and impacts to water resources from sediment, agricultural chemicals, manure, and other fertilizers.
 - f. Measure amount of water used.
2. Manage water resources in accordance with local authorities.

Principle 4: Crop Protection

Protect cotton plants from harmful pests and minimize worker and environmental exposure to pesticides

Criteria

1. Use an integrated pest management (IPM) plan representing the best knowledge available that includes:
 - a. Maximizing natural pest control with prevention practices such as:
 - i. *Cultural practices and traps*
 - ii. *Historic pest information*
 - iii. *Life cycle understanding of pest*
 - iv. *Monitoring*
 - v. *Natural pesticides where available and*
 - vi. *Host plant pest resistance*
 - b. Use of pesticides when pest damage/numbers require action based on university threshold guidelines.
 - c. Use only pesticides that have been fully evaluated and approved in accordance with science-based assessment and risk-based approvals of the U.S. Environmental Protection Agency (EPA) conducted in consultation with National Marine Fisheries Services, National Fish And Wildlife Service, U.S. Food And Drug Administration, and U.S. Department Of Agriculture.
 - d. Use only pesticides approved for use on cotton in the U.S.
 - e. Observe use restrictions and risk mitigation measures as required by law on labels of each active ingredient.
2. Protect all workers on the farm by ensuring workers annually attend, complete, and obtain verification documents of compliance to EPA Worker Protection Standards for pesticide safety training.
3. Ensure Pesticide Handlers and Applicators complete additional required training and certification, including product specific training.
4. Protect people and animals from coming in direct contact with highly hazardous pesticides through engineering controls for handling, loading and application.
5. Ensure persons who prepare and apply pesticides are healthy, skilled, and trained in pesticide application safety, 18 years or older and not pregnant or nursing.
6. Ensure persons who prepare and apply pesticides employ appropriate personal protective equipment (PPE) as specified on the EPA Approved label.
7. Apply pesticides in accordance with all label requirements, including rate restriction (both per application and seasonal), application weather restrictions, water body buffer restrictions, and sensitive area restrictions as published on labels for each individual chemical.
8. Store pesticides and other agrochemicals in a secure and approved location.
9. Appropriate use and disposition of containers.
10. Use appropriate disposal methods of unused products/mixes and rinsate.

Principle 5: Harvest Preparation

Manage harvesting for fiber quality preservation

Criteria

1. Use only U.S. EPA approved harvest aid chemicals (defoliants and desiccants) to prepare the crop for machine harvesting
2. Ensure compliance with product specific labels and pre-harvest intervals (days required between application and harvest).
3. Manage harvest and store seed cotton to preserve fiber quality.
4. Monitor fields and equipment to minimize lint contamination from plastic and other non-cotton fiber contaminants.
5. Maintain buffer zones from other crops, buildings, water bodies and non-cotton areas.

Principle 6: Biodiversity

Promote plant, animal and microorganism biodiversity and efficient use of land

Criteria

1. Employ practices that maximize agricultural ecosystems services through enhancing natural habitats and increasing biodiversity in and around agricultural landscapes.
2. Use tools for assessing habitat potential to guide ecosystem enhancement of cotton fields and surrounding areas.
3. Promote agronomic and cultural practices that enhance soil health and biodiversity.
4. Retire unproductive land and convert to a use suitable for promoting biodiversity.

Principle 7: Fiber Quality, Data Management and Traceability

Preserve fiber quality, and assure identity preservation through the supply chain

Criteria

1. Use locally adapted varieties to match productivity and market needs.
2. Maintain identity preservation of bales through national permanent bale identification systems.
3. Provide transparency of quality measurements for supply chain participants.
4. Ensure data integrity in capturing, aggregating, and reporting against environmental goals and metrics through robust system design and independent verification.
5. Quantify field environmental impacts annually using the Field to Market FieldPrint Platform to monitor and quantify the following:
 - a. Land use
 - b. Soil loss
 - c. Energy
 - d. Water use efficiency
 - e. Greenhouse gas
 - f. Biodiversity (habitat potential index)
 - g. Water quality index
 - h. Soil carbon index.
6. Aggregate Field to Market metric data values for land use, energy, soil loss, water use, greenhouse gas, and carbon and report the information on the U.S. Cotton Trust Protocol platform.
7. Ensure security and data integrity of environmental metrics to meet Science Based Target Initiatives and Sustainable Development Goals of global textile partners.

Principle 8: Farm Management

Assure a safe and productive living and working environment

Criteria

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.

Principle 9: Worker Well-being

Promote decent work

Criteria

1. Workers are treated fairly.
2. Wages are equal to or higher than required by law are provided.
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.