

Grower Enrollment Questionnaire



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

The Trust Protocol grower enrollment questionnaire consists of nine categories:

Soil health, nutrient management, water management, crop protection, harvest preparation, biodiversity, fiber quality and traceability, farm management and worker well-being.

As producers go through the questionnaire, the following are choices for answers:

- I am in compliance (on required questions)
- I do now on most of my fields
- I am implementing on 1 or more fields
- I will consider in next 3 years
- Not appropriate for my farming operation

Soil Health

1. If applicable, assure farm meets Conservation Compliance provisions (e.g., highly erodible land) of the US Farm Law as well as any state or local requirements.
2. Work with advisors or mentors who have expertise in soil health.
3. Utilize conservation tillage practices such as minimum, strip, mulch or no-till.
4. Prevent or alleviate soil compaction through prescribed tillage operations, controlled traffic patterns and avoidance of traffic where soil moisture is above field capacity.
5. Use permanent and/or annual windbreaks to reduce wind erosion.
6. Apply practices to minimize plant damage from wind erosion (e.g., surface residue or sand fighters).
7. Construct and maintain erosion control structures such as contour terraces, catch basins, diversion channels and grassed waterways.
8. Rotate cotton with other crops when economically feasible.
9. Maintain plant residue on soil surface year-round.
10. Plant cover crops if sufficient irrigation water and/or soil moisture is available.

Nutrient Management

11. Have a nutrient management plan that considers soil type, soil pH, related local conditions while avoiding excess fertilization and conducting soil tests as appropriate for nutrients and micronutrients. (AGJ)
12. Work with an agronomist or other qualified expert with training in nutrient management to improve run-off water quality.
13. Conduct soil test to determine residual N, P & K and micronutrients and apply only recommended amounts to meet attainable productivity targets.
14. Monitor plant nutrition needs by in-season tissue testing, such as petiole monitoring.
15. Test animal wastes and manure used for fertilizer for nutrient content, and match rate applied to crop needs.
16. Check and comply with local regulations when applying manure.
17. Keep records of application dates, materials and rates to track efficiency and identify opportunities for improvement.
18. Consider soil types when selecting fertilizer sources.
19. Apply fertilizer as close to time of crop need as possible.
20. Use GPS or other precision application tools, such as variable rate application systems where nutrient and soil variations warrant.

Water Management

21. On installation of new wells or existing wells (where applicable), comply with local and state requirements including licensing if appropriate.
22. Conserve and utilize natural rainfall and/or tail water through use of conservation tillage or apply soil amendments.
23. Utilize irrigation strategies which complement overall management of crop, pests and harvest date.
24. Utilize variable rate irrigation (VRI) on fields with known spatial variability in soil types, topography, and/or non-crop areas.
25. Utilize flow meters or canal structures to measure water use.
26. Use soil, climate, or plant-based measurements such as moisture probes or potential evapotranspiration (PET) data to monitor soil and crop water status.
27. Keep records of application dates, materials and rates to track efficiency and identify opportunities for improvement.
28. Use riparian buffer when water features are present.

Crop Protection

29. Use only crop protection materials registered and approved by the US EPA and state regulators.
30. Follow label and use directions of crop protection products, and only on the crops specified.
31. Obtain necessary permits, licenses, and training for the application of crop protection products.
32. Consider environmentally sensitive sites such as homes, desirable vegetation, streams, rivers lakes and public areas.
33. Consider climatic and environmental factors such as temperature inversions, wind speed and wind direction.
34. Calibrate equipment and monitor for uniform coverage.
35. Comply with Worker Protection Standard regarding protective clothing, posting, restricted re-entry intervals, and training.
36. Use enclosed cabs on all ground boom application equipment for restricted use pesticides.
37. Use charcoal air filters or any comparable system in enclosed cabs of all ground boom application equipment.
38. Report pesticide use consistent with state laws and regulations.
39. If applicable, destroy stalks to eliminate, reduce or prevent overwintering insect and disease pests in keeping with local or regional conditions and regulations.
40. Maintain required training and certification of pesticide applicators consistent with current requirements.
41. For restricted use pesticides, maintain records of plant protection chemical applications according to product label, such as product name, rates, field locations, etc...
42. When required for a specific restricted use pesticide, including Highly Hazardous Pesticides, employ closed application and delivery systems and product-specific mitigation as mandated on label, to prevent exposure of workers and operators, spills and environmental exposure.
43. Make records available for audits by state enforcement officials consistent with current regulations.
44. Use qualified consultants or certified crop consultants to monitor crop and pest status and make recommendations for management.
45. Use plant-based measurements to help determine economic thresholds (e.g., square and/or boll retention)
46. Use science-based action thresholds to initiate insecticide treatments.
47. Monitor for pesticide resistant pests and follow recommended guidelines for resistance management.
48. Use production practices that promote healthy stands such as appropriate date of planting, optimum soil temperatures, appropriate seeding rate, seed vitality and seedbed preparation.
49. Inspect and keep annual records of fields and weed, insect, disease pressure.
50. Inspect and document fields in spring and fall for weed species and density to select appropriate weed strategy.
51. Manage weed seed bank by spot-applying post-emergence and layby herbicides or hand-rogue sporadic infestations to prevent seed buildup.
52. Maximize control provided by naturally occurring or released parasites, predators and pathogens by avoiding unnecessary insecticide applications and selecting least disruptive materials.
53. Participate in community-wide and area-wide approaches to pest management, such as containment and eradication involving resistant invasive or non-native pests.

Harvest Preparation

54. Follow precautions listed on harvest aid chemical labels.
55. Be aware of school and residential areas and maintain buffer zones for harvest aid applications.
56. Base selection and rates of harvest aid materials on crop status using techniques such as percent open boll, nodes above cracked boll, environmental conditions and harvest schedule.
57. Use application technology such as adjuvants and proper nozzle size to ensure good coverage while maintaining drift control.
58. Choose application method (e.g., ground or aerial) according to local conditions and proximity to sensitive areas i.e., buildings, streams, etc.
59. Inspect fields and remove any plastic mulch, shopping bags, plastic hay twine or other potential lint contaminants.
60. Inspect module covers and wraps for damage and repair as needed to prevent plastic contamination.
61. Locate modules to appropriate site as soon as possible to provide greatest protection from water damage.
62. Urge ginner to follow practices to completely remove module cover materials, and provide 100% inspection of module before entering the seed cotton feeders.

Biodiversity

- 63. Evaluate habitat potential by quantifying the Habitat Potential Index for the 10% or more of the cultivated cotton land's immediate surroundings using Field to Market tools.
- 64. Conduct whole farm habitat potential evaluation using tools by NRCS or Field to Market.
- 65. Be able to access maps, images, or sketches of the whole farm that can be used for identifying cover types such as forest, cultivated land, field borders, water features, wet lands, riparian areas, buffer zones, grassed areas, and non-profitable degraded areas for consideration for conversion to wildlife usage.
- 66. Use return on investment analysis to evaluate each acre or zone of a field for profitability and consider converting non profitable land to conservation areas or enrolling in programs such as the USDA's Conservation Reserve Program (CRP).
- 67. Enhance pollinator habitat by allowing native vegetation (e.g., wildflowers or native grasses) to become established in appropriate areas.
- 68. Engage a private land wildlife biologist for a farm visit to evaluate short term and long term future possibilities.
- 69. Conduct your own wildlife population trends assessment and whether you view the population each common species such as bobwhite quail, turkey, and deer as declining, stable or increasing.

Fiber Quality and Traceability

- 70. Consider data from replicated trials or other reliable sources when selecting varieties.
- 71. Select varieties with fiber quality profile and yield potential consistent with market needs and profitability.
- 72. Keep records of fields, bales and fiber quality.

Farm Management

- 73. Secure all pesticides during transportation and ensure they do not come in contact with human or animal food, clothing, bedding, toiletries or similar items.
- 74. Locate above-ground petroleum storage tanks at a minimum of 25 feet from any source of ignition or propane source.
- 75. If applicable based on storage volume, provide dikes for petroleum tanks to hold 110% of tank volume.
- 76. Work to assure on-farm disposal sites are in compliance with state and local regulations. Properly dispose of used motor oils, adhesives, paints, cleaners or lubricants.
- 77. Read label and follow any local ordinances on disposal of pesticide containers.
- 78. If applicable based on storage volume, maintain emergency hazardous spill plan (Spill Prevention Control and Countermeasures plan requirements or other regulatory requirements).
- 79. Provide regular employee educational programs dealing with farm safety, pesticide handling and on-farm environmental concerns.
- 80. Consider converting highly erodible non-productive land to conservation reserve, permanent pasture, or wildlife areas.
- 81. Enrolled or have participated in an existing program such as Conservation Reserve, EQIP, or other federal or state conservation programs.
- 82. Maintain well casing height in compliance with local regulations.
- 83. Follow local regulations for unused and/or abandoned water wells.
- 84. Test drinking water used by family and farm workers periodically to assure bacteria, nitrate and other pollutants do not exceed safe levels.
- 85. For mixing liquid fertilizers, provide for impermeable surface, sloped to keep spills contained where applicable. Locate farm chemical storage and handling facilities as far from water sources as possible—at least 500 feet from surface water sources and 300 feet from water well.
- 86. Maintain pesticide storage in separate free-standing building or cabinet used only for pesticides. Post signs and keep building locked. Provide roof and maintain impermeable floor or install curbs in storage and handling areas to contain leaks and spills of pesticides and fuels. No drain or provide floor drain to acceptable holding tank.
- 87. Use anti-backflow devices or maintain air-gap of at least 6 inches between tap or hose and liquid in spray tank. Do not make cross-connections between water supplies.
- 88. Dispose of sprayer rinse water by spraying on crops listed on label in accordance with label directions.
- 89. Triple rinse 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.
- 90. Recycle farm chemical containers where recycle centers are available or dispose of rinsed containers and empty bags in municipal landfill. Check local ordinances on disposal of pesticide containers.
- 91. Locate wastewater disposal systems more than 500 feet from potential surface water sources.

Worker Well-Being

- 92.** Comply with regulations applicable to agricultural operations under the Occupational Safety and Health Act as well as EPA worker protection standards and other appropriate regulations.
- 93.** Post, record and report occupational illness and injuries in a timely manner.
- 94.** Be knowledgeable of rules for hiring migrant workers (if applicable) in accordance with U.S. labor laws including child labor, housing, working conditions and compensation.
- 95.** Pay wages in accordance with national and state laws.
- 96.** Housing for temporary labor that consists of shelter, water supply, toilet facilities, bathing facilities, sewage disposal facilities, lighting, refuse disposal, first aid, pest control, and reporting of communicable disease.
- 97.** Post slow-moving vehicle emblem for any machine that travels 25 mph or less on public roads.
- 98.** Communicate 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.
- 99.** Provide a roll-over protective structure (ROPS) on all tractors operated by employees.
- 100.** Maintain safety guards and/or shields on farm equipment.
- 101.** Employees have access to sanitation that consists of drinking water, toilet and handwashing facilities
- 102.** Provide personal protective equipment for eyes, ears, face, head, feet, and hands where necessary.
- 103.** Identify confined spaces and provide guidance on proper procedures to follow when entering these spaces.
- 104.** Lock out electrical power before performing maintenance or service. Tag out with detailed instructions on tag to help prevent accidental injury to personnel.
- 105.** Review and update the health and safety program periodically; conduct periodic meetings and training sessions.
- 106.** Work with suppliers to improve health and safety, e.g., with farm equipment manufacturers and with suppliers of crop protection products on recycling containers and new mixing/application systems.
- 107.** Ensure that accident and emergency procedures, including first aid kits and access to appropriate transportation to medical facilities, are in place.
- 108.** The wage rate paid to workers is equal to or higher than the federal minimum wage and wage records show that workers are paid regularly and on time through an appropriate method of payment.
- 109.** There are no workers employed below the minimum age for employment defined by law.
- 110.** The farm abides by the state laws regarding nighttime work and prohibited hazardous occupations allowed for underage minors.
- 111.** There are no forms of forced labor or forced prison labor on the farm
- 112.** Taking measures such as posting Equal Employment Opportunity Commission (EEOC) placards and posters in common areas in order to advise of the policy to prevent all forms of discrimination in the workplace and also advise of grievance procedures.
- 113.** Equal wages are paid to workers who perform the same job, irrespective of gender.
- 114.** Workers have the right to establish or join organizations of their own choosing and there is no management interference with the right of workers to bargain collectively.
- 115.** Use of corporal punishment, mental or physical coercion, sexual harassment or physical or verbal abuse or harassment of any kind is prohibited.
- 116.** Participate in producer, professional, or civic organizations actively promoting community well being.

