Sustainability Standard™

SUSTAINABLE FOOD GROUP SUSTAINABILITY STANDARD

Audit Guidelines

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Replaces	**Applicable to**	
Sustainability Standard - Audit Guidelines v1.5 051823 FINAL	Approved Sustainability Standard Certification Bodies	

Scheme owner

Sustainable Food Group (SFG) is a part of the IPM Institute of North America, a non-profit with over 25 years of experience in implementing sustainability best practices in agriculture and communities. As experts in agricultural supply chain sustainability, SFG has developed high-impact, science-based programs for food industry leaders.

SFG envisions a world where food is grown in sync with natural processes and where agriculture and food companies are a force for good, directly benefiting workers, consumers, water, air, climate, biodiversity and soil. Read more at https://ipminstitute.org/branch/sfg/.

Data partner

Azzule Systems is a leading global data management solution provider, helping companies maintain visibility over their supply chains.

More information

For more information about the Sustainability Standard certification, visit the Sustainability Standard webpage, https://ipminstitute.org/services/sustainability-standard/, or contact Sustainable Food Group at certification@sustainablefoodgroup.org.

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Acknowledgement: The authors gratefully acknowledge substantial contributions of text to this document with permission from PrimusGFS, including the *PrimusGFS Audit GAP (Module 2) Guidelines.*

Glossary: The pertinent terms for the Sustainability Standard, stakeholders, scope and implementation are defined in alphabetical order starting on page 60. Please refer to the Glossary for clarity or context about the terminology.

Introduction

These guidelines are provided to help auditors execute and score the Sustainable Food Group Sustainability Standard™ ("Sustainability Standard") in a knowledgeable, consistent and impartial manner. This information is provided to interpret and support the principles, requirements and expectations of the Sustainability Standard as noted in the Scheme normative documents.

This document is for guidance purposes only and in no way replaces any regulatory legislation or other legal guidance documentation nor should it be viewed as giving legal advice. The Sustainable Food Group (SFG) and Azzule Systems accept no liability for the contents of this document, nor how an individual chooses to apply this document. This document is owned by SFG and as such, must not be copied in whole or in part for any other use. Under no circumstances can this document be copied by or given to any person without the SFG's formal permission via written consent.

These guidelines are neither exhaustive nor exclusive and detail the Minimum Requirements only by means of statements related to audit questions and expectations. There will be variations in applicability to an operation based on the process(es) and commodities involved. Auditors and auditees should interpret the questions and criteria in different situations.

The operation practices, policies and procedures should be pertinent to the situation at hand and be able to stand up to any challenge by an auditor or other relevant interested party (including law enforcement). Where laws, customer requirements and specifications, commodity specific guidelines and/or best practice recommendations exist and are derived from a reputable source, these practices and parameters should be followed if they present a higher level of conformance than those included in the audit scheme.

Website links in this document are included to aid the reader's understanding and provide assistance by way of example; link listings are not exhaustive. Links are not a sign of endorsement by the SFG. Furthermore, SFG accepts no liability for the content of these links.

There is additional information on the Sustainability Standard website, including the official SFG Sustainability Standard General Regulations, which explain the overall audit scheme, and the Sustainability Standard Checklist.

The following is a modified excerpt from SFG Sustainability Standard General Regulations v2.0 to provide an introduction to auditing the Sustainability Standard. For the full and current text please refer to the most recent version of SFG Sustainability Standard General Regulations at Sustainability Standard - IPM Institute.

Audit Execution

The audit should be performed using the most recent version of the SFG Sustainability Standard normative documents.

It is imperative that the operations being audited are functioning as they usually do on a "normal" day, and that a normal complement of personnel is on-site when the audit occurs, i.e., the facility is running product and the farm is in operation with crop(s) in scope present at the time of the audit, in order for the auditor to complete a valid assessment.

Scoring System

The audit format is updated periodically as needed. This may include the layout, the questions themselves and point assignments. Point assignments vary by question.

Questions may be scored as No (N) or Not Applicable (N/A) or Yes (Y).

- A 'No' response should be selected if the question is in no way satisfied by the auditee, and results in a score of 0 for the question.
- A 'Not Applicable' response should be selected if the operational practice that the question describes does not apply to the auditee, e.g., no pesticides are applied or if the size or type of operation makes the question irrelevant. Responses marked as 'Not Applicable' receive zero points and will be scored as 0/0 in the Azzule system, i.e., the system will subtract the corresponding question's point total from the total possible points for the audit.
- A 'Yes' response will be scored on a 1 to 5 scale based on the adequacy of completion, with 1 being the lowest score and 5 being the highest. Total conformance is scored as a five (5) and results in the maximum possible points for the question. Less-than-total conformance will be scored between 1 and 4 based on the guidance provided for each question.

To convert the 1 to 5 scores into a point value for each question, the Azzule system will complete the following calculation:

(Question total points) x (Assigned point scale value/5) = Points earned

For example, a 40-point question would have the following breakdown of score values: 1 = 8pts, 2 = 16pts, 3 = 24pts, 4 = 32pts, 5 = 40pts.

5-point scale

For most questions, there are five possible scoring options for a 'Yes' response: total conformance (score of 5), near-total conformance (score of 4), moderate conformance (score of 3), some conformance (score of 2) and minimal conformance (score of 1). Guidance for auditors to assign a score is provided in these Audit Guidelines for each question in the Checklist.

Generally, scoring options reflect the extent to which a practice is adopted, the number of practices adopted or the level of advancement of practices adopted. For example, a score of 1 may be awarded for a practice that is minimally adopted, e.g., on 0 to 19% of production acreage, while a score of 3 could mean that a practice is adopted on 40 to 59% of production acres, or that multiple best practices are adopted but there remains opportunity for further improvement or expansion of best practices.

Note: Not all questions follow the 5-point scale. This occurs in cases where there are limited (less than five) scenarios for how an auditee could be performing on the question; in those cases auditors should use the guidance provided as well as their auditor training, experience and best judgement to score the auditee.

The 5-point scale is only for questions with a 'Yes' response. Any 'No' response results in a score of zero.

Minimum Requirements

Some questions in the Sustainability Standard are Minimum Requirements. Conformance with Minimum Requirements is required to achieve certification. The Minimum Requirements in the Policies section are scored only as 'Yes,' total conformance (score of 5), or 'No,' no conformance (score of 0). Total conformance with Minimum Requirements in Policies is required to achieve certification. The Minimum Requirements in the IPM and Nutrient Management section are scaled on the 5-point scale, and a minimum score of four is required to achieve certification.

Minimum Requirements are identified as such and specify the minimum score required to achieve conformance with the question, and therefore for certification. For example:

1.02.02 GMO transparency (Minimum Requirement, score of 5 required for certification)

Special Circumstances for Not Certifying
Under special circumstances and upon finding serious food safety or other risks, an audit can result in automatic failure and a 'Not Certified' decision. The auditor should immediately inform the auditee of the automatic failure during the audit and the auditee has the option to continue or stop the audit at that point (all charges apply).

Other special circumstances not related to food safety risks include but are not necessarily limited to deliberate illegal activities, violence or threats towards an auditor, attempted bribery, falsified records, or finding serious safety issues during the audit.

Audit Termination
Once an audit has begun and the auditee wishes to stop the audit for any reason, the auditor will complete the report for as many questions as they were able to verify. Sustainability Standard audits cannot be converted into a pre-assessment audit once the audit has started. If an audit is terminated early, then questions that the auditor was unable to verify will be marked as 'Non-Conformances' and receive a score of zero. For questions unable to be verified, the auditor will indicate that the audit was terminated at the request of the auditee before the auditor could verify whether the audit conformed to question criteria. A report will be created in the database and issued, and all charges will apply.

Documentation Requirements

When an organization and its associated operations are being audited, the auditor is verifying the organization's systems (standard operating procedures [SOPs], policies etc.) and the implementation of these systems. For Group certification, the auditor is verifying the Group's Internal Management System (IMS), the grouping of documents, policies, protocols, etc., that dictate the standards set by the Group that all products/suppliers in the Group must meet.

Typically, auditees create and implement their own systems and SOPs but they can also use systems and/or SOPs that have been created by other entities, e.g., their customer's technical manager, their consultants etc. or a combination of resources.

As long as the systems meet the requirements of the Sustainability Standard questions and expectations and these systems are being implemented properly, the auditee should receive full points for their efforts. The auditee is responsible for ensuring that the systems they use are reviewed, maintained and up to date. If the auditor detects any inconsistency, it will result in a lower score.

New Auditees/First Time Auditees
If in operation for more than three consecutive months, an auditee should have at least three consecutive months of documentation available for review. If the auditee has less than three months of most documentation available for review, self-assessment, rather than a third-party audit, is strongly advised. If the auditee has less than three months of most documentation available for review and decides to have a regular audit, they should be aware that they cannot receive full conformance for paperwork questions and that the down score will be based on the amount of paperwork available.

A short season operation is defined as in operation for less than three consecutive months. If this is the case, the auditee should have at least three months of documentation available for review. These do not need to be consecutive and may include documentation from the previous season. Where an operation does not have three months of records available but chooses to pursue a third-party audit, the auditee should have at least the previous season's records available for review. If this is the case, the auditee should be aware that they will not

receive full conformance for paperwork questions and that the down score will be based on the amount of paperwork available.

For Group certification, the duration of existence is determined from the date of establishment of the Group; the addition of new producers to the group does not change this designation.

For new auditees in Group certification, there should be records available from the last three months, or since the establishment of the Group if the Group's establishment occurred greater than three months prior to the initial onsite audit.

Existing Auditees
If in operation for more than three consecutive months per year, an auditee that has previously undergone an audit should have documentation available from the date of the last on-site audit. This will be three years of documentation for operations correctly adhering to the audit cycle timeline.

If the auditee is a short season operation, in operation for less than three consecutive months, they should have at least three months of documentation. These records do not need to be consecutive, however, they must include documentation since the last on-site audit. Where an operation does not have three months of records available but chooses to pursue an audit, the auditee should at least have documentation available since the previous audit, or, if there has been no production/processing of a crop since the previous audit, documentation from the most recent season should be available for review. If this is the case, the auditee should be aware that they will not receive full conformance for paperwork questions and that the down score will be based on the amount of paperwork available.

For existing auditees in Group certification, there should be records available from the previous audit.

On-site audit documentation requirements

	Operates *less than* three months per year (short-season operation)	**Operates *more than* three months per year**
New Auditee	Three months of records, which need not be consecutive (i.e., may include records from previous seasons to reach cumulative three-month total)	Three consecutive months of records
Existing Auditee	Three months of records, which need not be consecutive; *must include* records since previous on-site audit (or longer, if needed to meet minimum requirement of three months of records)	Records since previous on-site audit

Visual versus Verbal Confirmation
Visual confirmation is the default method of auditing, which includes visual inspection of activities/operations or documents and records. Scores and comments are assumed to have been visually confirmed unless otherwise stated. Verbal confirmation should be the exception to the rule and, if auditing properly, this should be rarely used. If a verbal confirmation is accepted, the auditor should note this in the comments section of the question.

How to Use Point Assignment Guidelines
The following sections of this guidance manual are designed to help the users choose the right score for each question, thereby helping to ensure consistency. This document does not cover all situations and is intended to be a set of guidelines not a set of rules. Auditors are expected to follow the guidelines as much as possible, but it is understood that there will be situations in which an auditor should use their discretion. If an auditor needs make a judgment call and/or tackle a situation not covered by this manual, the auditor should note the circumstances in

the audit report with full justifications. The auditor should also forward these details to the SFG in a separate note, so that this can be accounted for in the next version of the manual.

A third-party audit is voluntary and is not a legal document, therefore questions have been worded to avoid seeming to be legally binding.

General Standards

The Sustainability Standard consists of three checklists, which together comprise the full Sustainability Standard: the Organization-Level Checklist, the Farm-Level Checklist and the Facility-Level Checklist.

The Organizational-Level Checklist is always accompanied by either the Farm- or Facility-Level Checklist, depending on whether the audit is being conducted for one Farm, Facility, or both.

For Group certification, audits of the Group leader (IMS holder) do not need to include review of individual producer, i.e., Group member, records, however the IMS must make it clear that this information is readily available to facility or Group certification holder. Policies enumerated in the IMS will be verified through audits of a sample of the Group members. The review of the IMS and its coverage of the following standards is the core of the Group certification audit.

Where the question refers to organization, in the case of Group certification, this refers to the Group and the standards as set by the IMS for Group members as well as the Group leader.

Organization-Level Checklist

Environmental Certifications

1.01.01 Certifications (Informational, 0 points): Is production currently certified under any other program(s) addressing elements of sustainable agriculture and requiring an on-site audit? (Informational only, answer will not affect score.)

Select certificate(s) that are current, available for inspection and apply to all of the operations in the scope of the application. Choices: Demeter Certified Biodynamic, Eco Apple, Equitable Food Initiative, Fair Food Program, Food Alliance, Protected Harvest, Rainforest Alliance, SCS Sustainably Grown, TruEarth, USDA Organic, Other.

Policies

1.02.01 No biosolid use (Minimum Requirement, score of 5 required for certification) (10 points): Is there a written policy statement prohibiting the application of both untreated and treated biosolids to production sites for at least one year prior to production?

Total conformance (5): A written policy available for inspection contains a clear statement prohibiting the application of both biosolids (treated sewage sludge) and untreated sewage to all sites in production for at least one year prior to production. The policy is communicated and applied to all operations that supply the facility and all growing operations in the scope of the applications.

Non-conformance (0): No written policy exists. Policy is not communicated and applied to all operations that supply the facility and all growing operations in the scope of the applications.

1.02.02 GMO transparency (Minimum Requirement, score of 5 required for certification) (10 points): If the crops/ ingredients grown are modified using GMO technologies, is there a written policy that they will be disclosed to the buyer?

Total conformance (5): A written policy available for inspection includes a clear statement that any GM content will be disclosed to the buyer. If a GM variety of the product is available on the market (e.g., zucchini, yellow squash, sweet corn, potato, papaya) and the organization does not communicate GM content to buyers, a written seed-supplier certification and/or third-party test results are available indicating no GM content. U.S. operations should receive full credit for adhering to the National Bioengineered Food Disclosure Standard under the USDA.

Non-conformance (0): No written policy exists.

Not applicable: The operation does not plant, grow, pack or sell any GM ingredients, and the company commits to a disclosure policy if GM seeds are ever planted, grown, packed or sold.

1.02.03 CRISPR transparency (Minimum Requirement, score of 5 required for certification) (10 points): If the crops/ ingredients grown are modified using CRISPR technologies, is there a written policy that they will be disclosed to the buyer?

Total conformance (5): A written policy available for inspection includes a clear statement that any content modified using CRISPR technologies will be disclosed to the buyer. If a CRISPR-modified variety of the product is available on the market and the organization does not communicate CRISPR content to buyers, a written seed-supplier certification and/or third-party test results are available indicating no CRISPR modified content. U.S. operations should receive full credit for adhering to the National Bioengineered Food Disclosure Standard under the USDA.

Non-conformance (0): No written policy exists.

Not applicable: The operation does not plant, grow, pack or sell any CRISPR modified ingredients, and the company commits to a disclosure policy if CRISPR modified seeds are ever planted, grown, packed or sold.

1.02.04 Legal Compliance (Minimum Requirement, score of 5 required for certification) (10 points): Is there a policy that the organization complies with all laws and regulations governing pesticide and nutrient use, labor, hiring and employment practices, and employee health and safety?

Total conformance (5): A written policy available for inspection includes a clear statement that all operations in the scope of the application will comply with all applicable laws and regulations of the jurisdiction(s) governing the production location and addressing labor (child labor, involuntary labor, minimum wage), worker health and safety, and handling, storage and application of all pesticides and nutrients.

Non-conformance (0): No written policy exists.

1.02.05 Group certification (Minimum Requirement for Group Certification only, score of 5 required for Group certification) (10 points): Does the Group maintain an Internal Management System (IMS) to ensure facility and producer group member compliance with the Sustainability Standard certification criteria? Does the IMS meet all Minimum Requirements identified in the IMS Checklist?

Total conformance (5): For organizations applying for Group certification, there are written policies, procedures, SOPs, etc. available for review and records of internal audits of Group members and their compliance to the IMS.

Non-conformance (0): For organizations applying for Group certification, there are incomplete or a lack of written policies, procedures, SOPs, etc. available for review and records of internal audits of Group members and their compliance to the IMS.

Not applicable: Applicant is not pursuing Group certification.

Air Quality

1.03.01 Protect Air Quality (40 points): Does the organization have measures in place to protect air quality?

- Reducing odors by careful handling and storage of bulk materials (e.g., manure and waste)
- Modifying existing equipment to reduce emissions
- Purchasing utilities that use less energy or have lower emissions (e.g., tractors, irrigation pumps, processing equipment, lighting, HVAC systems)
- Keeping vehicle use to a minimum (e.g., practices that reduce tractor passes, motorized transportation needs)
- Adjusting timing of operations (e.g., no tillage during high winds, indoor environmental control changes based on seasonal trends)
- Paving roads on site
- Applying suppressants on unpaved roads
- Establishing and maintaining wind breaks
- Reducing chemical drift (outdoors or indoors)
- Managing humidity, ventilation, and/or temperature to prevent the prevalence of molds, bacteria and other airborne pathogens in damp, indoor environments
- Implementing or updating infrastructure to filter airborne pathogens in indoor environments

Total conformance (5): Organization has implemented at least three of the above measures across at least 80% of operations.

Near-total conformance (4): Organization has implemented at least three of the above measures across at least 60% of operations.

Moderate conformance (3): Organization has implemented at least three of the above measures across at least 40% of operations.

Some conformance (2): Organization has implemented at least two of the above measures across at least 40% of operations.

Minimal conformance (1): Organization has implemented at least one of the above measures across at least 40% of operations.

Non-conformance (0): No measures are in place to protect air quality.

1.03.02 Prohibit burning (20 points): Does the organization have a policy to prohibit burning trash, vegetation, and crop residue, except where the auditee is participating in scientific research or where it is used as an accepted Best Management Practice (BMP)?

Total conformance (5): Organization does not use burning to dispose of debris (e.g., garbage, broken pallets). Burning vegetation and/or crop residue is limited to instances where the auditee is participating in scientific research or where it is an accepted BMP, e.g., expert-recommended burning of infected plant material to reduce disease inoculum. The BMP must be identified in scientific literature, e.g., NRCS, Extension, government agency or scientific research/education institution publication or communication, that the auditee provides for auditor review. The scientific research or BMP is thoroughly documented by the auditee, including the source.

Near-total conformance (4): Organization does not use burning to dispose of debris (e.g., garbage, broken pallets). Burning vegetation and/or crop residue is limited to instances where the auditee is participating in scientific research or where it is an accepted BMP, however, the BMP is not documented by the auditee OR the source of the BMP is not known or identified.

Moderate conformance (3): Organization does not use burning to dispose of debris (e.g., garbage, broken pallets). Burning vegetation and/or crop residue is limited to instances where the auditee is participating in scientific research or where it is an accepted BMP, however, the source of the BMP is unclear and/or unreputable AND the BMP is not documented by the auditee.

Some conformance (2): Organization does not use burning to dispose of debris (e.g., garbage, broken pallets). Burning vegetation and/or crop residue may occur occasionally or in rare circumstances in a manner that is not consistent with an accepted BMP or when the auditee is not participating in scientific research.

Minimal conformance (1): Organization does not use burning to dispose of debris (e.g., garbage, broken pallets). Burning vegetation and/or crop residue occurs regularly (in an average growing season) in a manner that is not consistent with an accepted BMP or when the auditee is not participating in scientific research.

Non-conformance (0): The organization does not prohibit the burning of debris.

Water Conservation

1.04.01 Watershed improvements (30 points): Does the organization participate in efforts to improve local and/or regional watersheds?

Total conformance (5): Organization engages in all four of the following practices and intends to continue the engagement in the medium to long-term or at least until goals are achieved

- Working with stakeholders and/or local organizations to identify goals for watershed enhancement
- Measuring progress toward meeting those goals
- Attending local and/or regional watershed management meetings
- Implementing water management practices that help mitigate risk to watersheds from agricultural production.

Near-total conformance (4): Organization engages in the four practices listed above but is unsure of future commitment to watershed improvement.

Moderate conformance (3): Organization engages in three of the four practices listed above.

Some conformance (2): Organization engages in two of the four practices listed above.

Minimal conformance (1): Organization engages in one of the four practices listed above.

Non-conformance (0): The organization does not try to improve local and/or regional watersheds.

Energy Conservation

1.05.01 Greenhouse gas accounting (20 points): Does the organization complete an annual greenhouse gas accounting assessment?

Total conformance (5): Organization has completed a greenhouse gas assessment for all operations within the past year that includes scope 1, scope 2 and partial scope 3 emissions. Scope 3 emissions accounting includes soil carbon sequestration and embedded energy used during the production of fertilizer. Results of the process are available for auditor review and used to inform policies and practices moving forwards. Tracking tools that satisfy total conformance include Stewardship Index for Specialty Crops (SISC) Energy Use Metrics, Cool Farm Tool, Field to Market Fieldprint Calculator and COMET-Farm.

Moderate conformance (3): Organization has completed a greenhouse gas assessment for all operations for scopes 1 and 2 within the last year, OR an assessment that meets total conformance criteria within the last three years. Results of the process are available for auditor review and used to inform policies and practices moving forwards.

Minimal conformance (1): Organization has completed a greenhouse gas assessment for some (but not all) operations for scopes 1 and 2 within the last three years, but not has not accounted for any scope 3 emissions. Results of the process are available for auditor review and used the development of policies and practices moving forwards.

Non-conformance (0): The organization has not completed a greenhouse gas accounting assessment.

1.05.02 Science-based targets (20 points): Has the organization established a science-based target for greenhouse gas emissions reduction?

Total conformance (5): Organization has set a science-based target for greenhouse gas emissions reductions that has been reviewed and validated by the Science Based Targets Initiative (SBTi).

Near-total conformance (4): Organization is in the process of setting a science-based target for greenhouse gas emissions reductions; the target has been submitted for review and validation SBTi.

Moderate conformance (3): Organization has committed to and is working towards setting a science-based target for greenhouse gas emissions reductions and intends to submit the target for validation to SBTi, or the organization has established greenhouse gas emissions reductions goals using another emissions accounting template or process.

Some conformance (2): Organization is working to set a greenhouse gas emissions reduction goal using another emissions accounting template or process but has not established specific goal(s) yet.

Non-conformance (0): Organization has not set or is not working towards setting any greenhouse gas emissions reduction goals.

1.05.03 Reduce food miles (20 points): Does the organization have measures in place to reduce food miles or transport emissions for product distribution?

Total conformance (5): The organization has multiple measures in place to reduce food miles or transport emissions for 100% of products sourced and distributed. Example measures include placing facilities close to production sites, sourcing from local suppliers, and planning trucking/delivery routes and timing to minimize miles driven.

Near-total conformance (4): The organization has multiple measures in place to reduce food miles or transport emissions for at least 80% of products sourced and distributed.

Moderate conformance (3): The organization has multiple measures in place to reduce food miles or transport emissions for at least 60% of products sourced and distributed.

Some conformance (2): The organization has at least one measure to reduce food miles or transport emissions for at least 60% of products sourced and distributed.

Minimal conformance (1): The organization has at least one measure to reduce food miles or transport emissions for at least 40% of products sourced and distributed.

Non-conformance (0): The organization does not have any measures in place to reduce food miles or transport emissions.

Not applicable: Organization does not own or operate vehicles or other modes of transport used in the distribution of its product.

Waste and Recycling

1.06.01 Food loss diversion (30 points): Does the organization track and have measures in place to divert food loss from landfill through one or more of the following strategies?

- Donating to food banks, shelters, schools or other organizations
- Feeding animals or leave crop unharvested
- Composting
- Anaerobic digestion with beneficial use of digestate/biosolids

Total conformance (5): Organization diverts more than 80% of food loss (meaning less than 20% of total food loss is sent to a landfill) using one or more strategies in the US EPA Wasted Food Scale. Preferred strategies (donation, animal feed, leave crop unharvested) are prioritized and implemented as the

primary loss diversion strategies. Food loss diversion rates are measured and quantified at both the farm and facility level for each diversion strategy and quantify food loss to landfill.

Near-total conformance (4): Organization diverts more than 80% of food loss, primarily using "least preferred" strategies in the US EPA Wasted Food Scale (anaerobic digestion, land application, composting). Food loss diversion rates are measured and quantified at the farm and facility level for each diversion strategy and quantify food loss to landfill.

Moderate conformance (3): Organization diverts more than 60% of food loss using one or more strategies present in the US EPA Wasted Food Scale. Overall food loss diversion rates are measured at the farm or facility level or are estimated or otherwise documented without measurement or quantification.

Some conformance (2): Organization diverts more than 40% of food loss using one or more strategies present in the US EPA Wasted Food Scale. Diversion rates are estimated or otherwise documented without measurement or quantification.

Minimal conformance (1): Organization diverts more than 20% of food loss using one or more strategies present in the US EPA Wasted Food Scale. Diversion rates are estimated or otherwise documented without measurement or quantification.

Non- conformance (0): No strategies are in place to divert food loss from landfill, or organization diverts less than 20% of food loss.

1.06.02 Material waste diversion (30 points): Does the organization track and have measures in place to divert non-organic material waste from landfill using the following strategies:

- Materials reuse
- Materials recycling

Total conformance (5): Organization diverts more than 80% of waste material (meaning less than 20% of total material waste is sent to a landfill) through reuse and/or recycling. Material may include pallets, plastic bottles, glass, batteries, electronics and paper. Material waste diversion rates are measured and quantified at both the farm and facility level for each diversion strategy and quantify material waste sent to landfill.

Near-total conformance (4): Organization diverts more than 60% of waste materials. Material waste diversion rates are measured and quantified at both the farm and facility level for each diversion strategy and quantify material waste sent to landfill.

Moderate conformance (3): Organization diverts more than 40% of waste materials. Overall material waste diversion rates are measured at the farm or facility level or are estimated or otherwise documented without measurement or quantification.

Some conformance (2): Organization diverts more than 20% of waste materials. Diversion rates are estimated or otherwise documented without measurement or quantification.

Minimal conformance (1): Organization diverts less than 20% of waste materials. Diversion rates are estimated or otherwise documented without measurement or quantification.

Non-conformance (0): No strategies are in place to divert waste materials from landfill and diversion rates are not quantified.

1.06.03 Sustainable packaging (20 points): Does the organization use consumer product packaging that improves sustainability?

Examples include:
- Biodegradable material
- Reusable material
- Compostable material
- Post-consumer recycled material
- No consumer packaging material used (bulk)
- Other (please describe); Recyclable material is not eligible for credit due to very low rates of recyclable materials actually being recycled.

Total conformance (5): 80% or more of consumer product packaging used by the organization fits one or more of the criteria above.

Near-total conformance (4): 60% or more of consumer product packaging used by the organization fits one or more of the criteria above.

Moderate conformance (3): 40% or more of consumer product packaging used by the organization fits one or more of the criteria above.

Some conformance (2): 20% or more of consumer product packaging used by the organization fits one or more of the criteria above.

Minimal conformance (1): Less than 20% of consumer product packaging used by the organization fits one or more of the criteria above.

Non-conformance (0): Organization purchases no consumer product used that fits one of more of the criteria above.

1.06.04 Recycled content (10 points): Is it standard practice for the organization to purchase supplies with incorporated recycled content?

Total conformance (5): It is standard practice for the organization to purchase five or more materials that contain recycled content. At least two products follow EPA guidelines for recycled content: 30% for paper, 25% for cardboard, 25% for carpet, 95% for wooden pallets, 60% for hoses, 25% for fiberglass insulation. Examples include recycled cardboard, drip tape, harvest bins, recycled office paper, recycled pallets and recycled building supplies.

Near-total conformance (4): It is standard practice for the organization to purchase four materials that contain recycled content (not necessarily following the EPA guidelines).

Moderate conformance (3): It is standard practice for the organization to purchase three materials that contain recycled content

Some conformance (2): It is standard practice for the organization to purchase two materials that contain recycled content.

Minimal conformance (1): It is standard practice for the organization to purchase one material that contains recycled

Non-conformance (0): Organization purchases no materials that contain recycled content.

Worker Safety and Welfare

1.07.01 Workers' rights (20 points): Does the organization have written policies and practices in place to uphold workers' rights regarding the following issues?

- Non-discrimination policy
- No harassment policy
- Procedures for employees to express grievances without fear of retaliation

Total conformance (5): Organization provides written evidence of policies and practices in place to uphold workers' rights regarding non-discrimination policy, no harassment policy and procedures for employees to express grievances without fear of retaliation.

Moderate conformance (3): Organization provides written evidence of policies and practices in place to uphold workers' rights regarding two of the above issues.

Minimal conformance (1): Organization provides written evidence of policies and practices in place to uphold workers' rights regarding one of the above issues.

Non-conformance (0): Organization does not have written policies and practices in place to uphold workers' rights regarding any of the above issues.

Not Applicable: The operation does not have employees.

1.07.02 Collective bargaining (10 points): Does the organization have a written policy that explicitly provides employees the right to collective bargaining?

Total conformance (5): Organization has a written policy to provide employees with the right to collective bargaining regarding wages, working conditions and equal opportunities regardless of gender. Workers are compensated at their full pay rate for time spent in meetings and there are no punitive measures for participating in collective bargaining.

Moderate conformance (3): Organization has a written policy to provide employees with the right to collective bargaining regarding wages, working conditions and equal opportunities regardless of gender. Workers are not compensated at their full pay rate for time spent in meetings. There are no punitive measures for participating in collective bargaining.

Non-conformance (0): Organization does not have written policies in place to provide employees with the right to collective bargaining.

Not Applicable: The operation does not have employees.

1.07.03 Fair hiring practices (20 points): Does the organization employ fair and transparent hiring practices?

- Terms of employment are disclosed during recruiting / before hire
- Employees hired directly
- No recruitment fees

Total conformance: (5): Organization implements fair and transparent hiring practices by following all three of the above practices.

Moderate conformance (3): Organization implements two of the above practices.

Minimal conformance (1): Organization implements one of the above practices.

Non-conformance (0): Organization does not implement the above fair hiring practices.

Not Applicable: The operation does not have any employees.

1.07.04 Fair pay practices (20 points): Does the organization employ fair and transparent pay practices?

- All work hours recorded and compensated, e.g., via automated tracking
- Piece-rate workers earn at least minimum wage or employees are paid hourly

Total conformance (5): Organization provides documented evidence of employing both of the above fair and transparent pay practices. The organization is open to worker feedback regarding these practices.

Moderate conformance (3): Organization provides documented evidence of employing one of the above fair and transparent pay practices.

Minimal conformance (1): Organization claims at least one fair and transparent pay practice not above.

Non-conformance (0): Organization does not ensure that all work hours recorded and compensated or that piece-rate workers earn more than minimum wage.

Not Applicable: The operation does not have employees.

1.07.05 Personal protective equipment (20 points): Does the organization provide training and personal protective equipment for pesticide handlers, applicators and any workers performing potentially dangerous tasks?

Total conformance (5): Organization provides training and personal protective equipment (PPE) for pesticide handlers, applicators and any workers performing potentially dangerous tasks, including climbing, operating machinery, using tools, mixing, loading or applying pesticides. PPE required on pesticide labels commonly includes respirators, eye protection, skin protection (body protection, gloves, boots), and head and neck protection. Training is provided at least annually and addresses correct use of PPE. Equipment is regularly maintained to ensure functioning and replaced or repaired as needed. For organizations that contract out pesticide application, contracted applicators use appropriate personal protective equipment and receive adequate training.

Moderate conformance (3): Organization provides training and personal protective equipment for pesticide handlers, applicators and any workers performing potentially dangerous tasks, including climbing, operating machinery, using tools, mixing, loading or applying pesticides. Training is provided at least annually and addresses correct use of PPE. One or more of the following may be true: equipment is not regularly maintained to ensure functioning, is not replaced or repaired as needed or, for organizations that contract out pesticide application, contacted applicators do not use appropriate personal protective equipment and/or do not receive adequate training.

Minimal conformance (1): Organization provides training or personal protective equipment but not both. Auditor observes some unsafe workplace practices, for example, workers climbing trees without safety equipment or ladders, or using machinery or applying pesticides without personal protective equipment.

Non-conformance (0): Organization does provide personal protective equipment or training for workers performing potentially dangerous tasks.

Not Applicable: The operation does not have employees.

1.07.06 Annual medical monitoring (20 points): Does the organization provide annual medical monitoring for workers handling organophosphates or carbamates with WARNING/DANGER or RED/YELLOW label?

Total conformance (5): Organization provides, and can provide documentation of, annual medical monitoring which includes cholinesterase testing for workers handling organophosphates or N-methyl carbamates with WARNING/DANGER or RED/YELLOW label. Workers are aware that medical monitoring is available, how to access it and workers that handle these specific chemicals are largely using it. Medical monitoring must include:

- Baseline testing of cholinesterase levels.
- Periodic testing to compare cholinesterase levels with baseline levels.
- Removing workers from handling practices if levels drop 30% below baseline levels. Workers may return to handling duties when levels return to 20% or less below the baseline.
- Using the same laboratory and testing methods for each test.

Near-total conformance (4): Organization provides, and can provide documentation of, annual medical monitoring which includes cholinesterase testing for workers handing organophosphates or N-methyl carbamates with WARNING/DANGER or RED/YELLOW label. Medical monitoring must include the four elements listed above. It is not known to what extent workers are receiving medical monitoring.

Moderate conformance (3): Organization provides, and can provide documentation of, annual medical monitoring which includes cholinesterase testing for workers handing organophosphates or N-methyl carbamates with WARNING/DANGER or RED/YELLOW label. Medical monitoring includes three of the four elements listed above.

Some conformance (2): Organization provides, and can provide documentation of, annual medical monitoring which includes cholinesterase testing for workers handing organophosphates or N-methyl carbamates with WARNING/DANGER or RED/YELLOW label. Medical monitoring includes two of the four elements listed above.

Minimal conformance (1): Organization provides medical monitoring for workers handing organophosphates or N-methyl carbamates with WARNING/DANGER or RED/YELLOW label. Medical monitoring includes one of the elements listed above.

Non-conformance (0): Organization does not provide medical monitoring for workers handing organophosphates or carbamates with WARNING/DANGER or RED/YELLOW label.

Not Applicable: The operation does not have employees.

1.07.07 Worker's compensation (20 points): Does the organization guarantee workers paid medical care for work-related injury and illnesses and compensation for lost wages during recovery?

Total conformance (5): Organization provides workers with paid medical care for work-related injury and illnesses and compensation for lost wages during recovery. Provision of medical care can be direct, i.e., by providing transportation to a healthcare facility and paying for care, or indirect, i.e., through the provision of medical or workers compensation insurance. Work missed due to work-related illnesses or injuries is not deducted from annual leave. Workers are paid 100% of wages during recovery time and do not pay any portion of workers compensation insurance premium.

Moderate conformance (3): Organization provides workers with paid medical care for work-related injury and illnesses and compensation for lost wages during recovery. Provision of medical care can be direct, i.e., by providing transportation to a healthcare facility and paying for care, or indirect, i.e., through the provision of medical or workers compensation insurance. One of the following is true: work missed due to

work-related illnesses or injuries is deducted from annual leave, workers are paid less than 100% of wages during recovery time, or workers pay a portion of workers compensation insurance premium.

Minimal conformance (1): Organization provides workers with paid medical care for work-related injury and illnesses and compensation for lost wages during recovery. Provision of medical care can be direct, i.e., by providing transportation to a healthcare facility and paying for care, or indirect, i.e., through the provision of medical or workers compensation insurance. Two or more of the following are true: work missed due to work-related illnesses or injuries is deducted from annual leave, workers are paid less than 100% of wages during recovery time, or workers pay a portion of workers compensation insurance premium.

Non-conformance (0): Organization does not provide workers with paid medical care for work-related injury and illnesses or compensation for lost wages during recovery.

Not Applicable: The operation does not have employees.

1.07.08 Employee advancement (30 points): Does the organization provide opportunities or incentives for employee advancement?

Examples include:
- Employee education and cost share
- Educational leave
- Internal advancement vs. external hires
- In-house education and training
- Incentive bonuses
- Profit sharing with employees/trade partners
- Quality bonus to suppliers
- Safety incentives

Total conformance (5): Organization provides five or more employee advancement opportunities or three to four opportunities if practices are industry-leading.

Near-total conformance (4): Organization provides four employee advancement opportunities or two opportunities if practices are industry-leading.

Moderate conformance (3): Organization provides three employee advancement opportunities.

Some conformance (2): Organization provides two employee advancement opportunities.

Minimal conformance (1): Organization provides one employee advancement opportunity.

Non-conformance (0): Organization does not provide employee advancement opportunities.

Not Applicable: The operation does not have employees.

1.07.09 Tracking worker safety (20 points): Does the organization work to improve incident rates?

Total conformance (5): Organization thoroughly tracks worker safety incident rates using an industry-standard calculation. For example, OSHA calculates rates as the number of work-related injuries and illnesses times 200,000, divided by the number of hours worked by all employees. Calculations and results are available for review by the auditor and results are transparent to workers. Results are used to guide policies and practices that reduce the risk of incident. U.S. operations should receive full credit for keeping the Recordable Incident Rate required by OSHA.

Moderate conformance (3): Organization tracks worker safety incident rates using OSHA or other industry-standard calculations. Results are tracked internally but are not used to guide policies or practices to reduce risk, nor are they communicated to workers.

Minimal conformance (1): Organization tracks worker safety incident rates using a non-standard calculation. Results are not used to guide policy or practice, nor are they communicated to workers.

Non-conformance (0): Organization does not calculate or record incident rates.

Not Applicable: The operation does not have employees.

1.07.10 Improving working conditions (100 points): Does the organization implement practices to improve working conditions?

Examples include:
- Incorporation of automation
- Workers are not required to regularly work more than 48 hours per week
- Lunch and work breaks are granted and respected
- Disciplinary measures are clearly outlined and appropriate; These measures are communicated to all workers
- Management provides information on workers' rights to organize
- Workers have tools and work clothes that are replaced regularly and free of charge
- Provide safe transport for workers to and from housing

Total conformance (5): Organization implements at least five practices to improve working conditions OR implements three or more measures to improve working conditions that are highly advanced, industry leading practices. Documentation is available showing access to these programs. There is no expectation that auditors review medical records.

Near-total conformance (4): Organization implements four practices to improve working conditions or implements two or more measures to improve working conditions that are highly advanced, industry leading practices.

Moderate conformance (3): Organization implements three practices to improve working conditions or implements one measure to improve working conditions that is a highly advanced, industry leading practice.

Some conformance (2): Organization implements two practices to improve working conditions.

Minimal conformance (1): Organization implements one practice to improve working conditions.

Non-conformance (0): Organization does not implement practices to improve working conditions.

Not Applicable: The operation does not have employees.

1.07.11 Additional social responsibility practices (100 points): Does the organization implement additional socially responsible practices?

Examples include:
- Provide livable housing
- Provide access to 24-hour medical care
- Provide access to dental care and psychological care

- Provide access to AA programs
- Provide access to domestic violence prevention programs
- Provide daycare and schooling for children
- Provide adult literacy programs
- Provide opportunities for adults to gain high school diploma
- Provide safe transport for workers to and from housing

Total conformance (5): Organization implements at least five practices aimed at improving social responsibility, or three or four highly advanced, industry leading practices.

Near-total conformance (4): Organization implements at least four practices aimed at improving social responsibility, or one or two highly advanced, industry leading practices.

Moderate conformance (3): Organization implements at least three practices aimed at improving social responsibility.

Some conformance (2): Organization implements at least two practices aimed at improving social responsibility.

Minimal conformance (1): Organization implements one practice aimed at improving social responsibility.

Non-conformance (0): Organization does not implement the above practices or other practices aimed at improving social responsibility.

Not Applicable: The operation does not have employees.

1.07.12 Tracking additional social responsibility practices (10 points): Does the organization track and communicate additional social responsibility practices?

Total conformance (5): Organization tracks and reports performance on socially responsible practices with written documentation, e.g., employee participation rate, total dollar investment, etc. Practices are communicated to relevant stakeholders, including workers, via two or more of the following: corporate social responsibility reports, company websites, social media, newsletters, press releases or shareholder communications. Data are updated at least annually.

Moderate conformance (3): Organization tracks and reports performance on socially responsible practices with written documentation, e.g., employee participation rate, total dollar investment, etc. Practices are communicated to relevant stakeholders, including workers, via one of the following: corporate social responsibility reports, company websites, social media, newsletters, press releases or shareholder communications. Data have been updated in the past three years.

Minimal conformance (1): Organization tracks and reports performance on some but not all socially responsible practices. Data are more than three years old.

Non-conformance (0): Organization does not track social responsibility practices.

Not Applicable: The operation does not have employees.

Sustainability and Stewardship

1.08.01 Sustainability team (50 points): Does the organization have employee(s) dedicated to sustainability initiatives within their organization?

Total conformance (5): Organization has employee(s) dedicated to sustainability initiatives within their organization, and these employee(s) have expertise in topics relevant to the industry, such as labor management, social responsibility, climate impacts, packaging, waste, habitat or biodiversity conservation, water conservation, energy conservation, soil health, Integrated Pest Management (IPM) and/or other relevant sustainability topics. The employee(s) review the company's sustainability performance and identify and pursue opportunities for improvement at least annually.

Non-conformance (0): The organization does not have dedicated employees for sustainability initiatives within their organization.

1.08.02 Sustainability goals (50 points): Does the organization have a written sustainability plan addressing goals for company operations?

Total conformance (5): The organization has a written sustainability plan outlining specific, measurable, time-limited goals for the company in at least four areas of sustainability such as labor management, social responsibility, climate impacts, packaging, waste, habitat or biodiversity conservation, water conservation, energy conservation, soil health, Integrated Pest Management (IPM) and/or other sustainability topics. The report is informed by experts, research and best practices.

Near-total conformance (4): A written sustainability plan is available for the organization outlining specific, measurable, time-limited goals in at least three areas of sustainability. The report is informed by at least two of the following: experts, research and best practices.

Moderate conformance (3): A written sustainability plan is available for the organization outlining goals in at least three areas of sustainability. Goals are not specific, not measurable or not time limited. The report is informed by at least two of the following: experts, research and best practices.

Some conformance (2): A written sustainability plan is available for the organization outlining goals in at least two areas of sustainability.

Minimal conformance (1): A written sustainability plan is available for the organization outlining goals in at least one area of sustainability.

Non-conformance (0): Organization does not have a written sustainability plan.

1.08.03 Sustainability reporting (30 points): Does the organization publicly report on sustainability goals and progress towards goals?

Total conformance (5): Documentation is available demonstrating that the organization publicly communicates information about sustainability goals and progress towards goals to any party seeking that information. Goals are communicated at least annually, and methods include at least two of the following: annual sustainability or corporate social responsibility reports, company websites, social media, newsletters, press releases or shareholder communications.

Moderate conformance (3): Documentation is available demonstrating that the organization publicly communicates information about sustainability goals and progress towards goals. Goals are communicated less than annually, and methods may include any of the following: annual sustainability or

corporate social responsibility reports, company websites, social media, newsletters, press releases or shareholder communications.

Minimal conformance (1): Organization publicly communicates some information about sustainability goals but does not communicate progress towards goals and/or goals are available are difficult to access, i.e., are buried within a website tab or not present on website at all, but only provided to shareholders.

Non-conformance (0): Organization does not communicate publicly about sustainability goals or progress towards goals.

Not Applicable: Organization does not have sustainability goals.

1.08.04 On-site research (30 points): Has on-site research been conducted or supported financially or otherwise in the past year?

Total conformance (5): On-site research has been conducted or supported financially or otherwise in the past year. Research that is ongoing is acceptable. Examples of research include but are not limited to crop variety trials, reduced-toxicity pesticide efficacy trials, conservation-related research projects with local experts, water conservation trials at field, packing or processing facilities, etc. Documentation of on-site research is available for review.

Non-conformance (0): On-site research has not been conducted or supported financially or otherwise in the past year, or written evidence does not show that this has occurred.

1.08.05 Science-based procedures (20 points): Are science-based procedures used for on-site research?

Total conformance (5): Documented, science-based procedures are used for on-site research. Research procedures include untreated controls, repeated treatments across space, and quantitative results. Examples of science-based research designs include completely randomized design, paired comparison, randomized complete block design, or split-plot design.

Non-conformance (0): On-site research has not been conducted and documentation does not exist.

1.08.06 Sustainable agriculture training (40 points): Do employee(s) dedicated to sustainability initiatives within the organization participate in ongoing training related to sustainable agriculture?

Total conformance (5): Relevant/key organization staff involved in implementing sustainability practices have participated in sustainability-related training events in the past year. Training(s) covered at least three sustainable agriculture/IPM-related topics. Training sessions may include industry association meetings, field days held on farms in season; Extension, government, or industry-produced web-based training; and Extension meetings. Example sustainable agriculture topics include soil health, nutrient management, biological controls; scouting, monitoring and/or thresholds; new pests and resistance management. Notes, certificates of completion, receipts for registration and/or event handouts with dates, times and topics covered are available for review, and there is documented evidence of organization implementing knowledge learned.

Moderate conformance (3): Relevant/key organization staff involved in implementing sustainability practices have participated in sustainability-related training events in the past year. Training sessions covered at least two sustainable agriculture/IPM-related topics. Notes, certificates of completion, receipts for registration and/or event handouts with dates, times and topics covered are available for review.

Minimal conformance (1): Relevant/key organization staff involved in implementing sustainability practices have participated in sustainability-related training events in the previous year. Training(s)

addressed one sustainable agriculture/IPM-related topics. Notes, certificates of completion, receipts for registration and/or event handouts with dates, times and topics covered are not available for review.

Non-conformance (0): Organization staff have not participated in sustainable agriculture-related training events in the previous year that exceed the minimum legal requirements.

1.08.07 **Hosting training (10 points):** Has the organization provided, hosted or supported one or more events in the past three years that include training in one or more aspects of sustainable agriculture?

Total conformance (5): Organization has provided, hosted or supported one or more training events in the past three years that address sustainable agriculture topics. Agendas, minutes and/or announcements of each training is available for review.

Non-conformance (0): Organization has not hosted a training event in the past three years that addresses sustainable agriculture or documentation from the event does not exist.

Informational

1.09.01 **Informational (0 points):** Have any of the operations in the scope of the application been cited for violations of any legal requirements since the previous audit or within the last three years if they are a new applicant? If yes, has the operation made changes to correct violations? (Informational only, will not affect the score.)

Organization describes any citations issued by legal authorities against operations in the scope of the application including those concerning hiring and employment, worker health and safety, and the handling, storage and application of pesticides and nutrients since the previous audit (or within the last three years if a new application). The organization will report status of any open or unresolved violations.

1.09.02 **Informational (0 points):** Have any operations in the scope of the application experienced an environmental emergency since the previous audit, or within the past three years for new applicants? (Informational only, will not affect the score.)

Organization describes any environmental emergencies experienced since the previous audit. New applicants report any experienced within the previous three years. Environmental emergencies include only those events that result in a threat of environmental contamination or worker exposure, e.g., vehicle accident, fire, fuel, fertilizer or pesticide leak or spill, earthquake, tornado, volcanic eruption that result in release of hazardous materials into the environment or worker exposure.

Farm-Level Checklist

Biodiversity and Environmental Protection

2.01.01 Protect sensitive areas (30 points): Does the farm map and protect all environmentally sensitive areas within and adjacent to production areas?

Total conformance (5): All environmentally sensitive areas are mapped, and protective measures are in place to protect all sensitive areas near field and greenhouse production sites. Environmentally sensitive areas include both natural area sites that support biodiversity, including (but not limited to) aquifers, wetlands, forests, grasslands, pollinator and/or beneficial insect habitat, riparian areas, and endangered/threatened species habitat, and human-made sites that have potential to be negatively impacted by agricultural production, including wellheads, battery stations, fuel and chemical storage sites, storm drains, housing and office buildings. Effective and sufficient measures are in place to protect all sensitive areas near field and greenhouse production sites, such as undeveloped reserves, filter strips, signage (e.g., Do Not Enter), fencing, buffers, invasive plant removal, locked areas, adequate containment and enclosed production (greenhouse/hydroponic producers). Auditee can provide an explanation for the measures taken to protect sensitive areas and cite the use of scientific resources. Maps have been updated in the past three years and are used to inform practices and policies.

Moderate conformance (3): All environmentally sensitive areas are mapped, and protective measures are in place to protect more than half of all sensitive areas near field and greenhouse production sites. There are opportunities to expand protective measures in order to protect all sensitive sites. Auditee can provide an explanation for the measures taken to protect sensitive areas. One or more of the following is true: maps have not been updated in the past three years or are not used to inform practices and policies.

Minimal conformance (1): Environmentally sensitive areas or structures on or adjacent to field and/or greenhouse production sites are identified on a map; however, map is incomplete and/or out of date. Measures are in place to protect less than half of all sensitive areas near field and greenhouse production sites. There are opportunities to expand protective measures in order to protect all sensitive sites. Maps are incomplete, out of date, or are not used to inform practices and policies.

Non-conformance (0): Environmentally sensitive areas or structures are not identified and protective measures are not in place to protect sensitive sites near field and greenhouse production sites.

2.01.02 Avoid sensitive areas (15 points): Are environmentally sensitive areas avoided when putting new land into production?

Total conformance (5): Environmentally sensitive areas have been avoided in the establishment of new production since the last audit (or within the past year for new applications). In all cases where new production is near environmentally sensitive areas, a buffer of at least 30 feet (9 meters) is present between production and the sensitive area.

Moderate conformance (3): Environmentally sensitive areas have been avoided in the establishment of new production since the last audit (or within the past year for new applications). In some cases where new production is near environmentally sensitive areas, buffers of 20 to 30 feet (6 to 9 meters) are present.

Minimal conformance (1): Environmentally sensitive areas have been avoided in the establishment of new production since the last audit (or within the past year for new applications). New production has occurred near environmentally sensitive areas without adequate buffers.

Non-conformance (0): New production has been established directly in environmentally sensitive areas since the last audit (or within the past year for new applications).

Not applicable: No new land has been put into production since the previous audit (or within the past year for new applications).

2.01.03 Visual monitoring (15 points): Are all environmentally sensitive areas within and adjacent to production sites visually monitored at least annually?

Total conformance (5): Visual monitoring records are available for review for all environmentally sensitive areas or structures on or adjacent to farm (field and greenhouse) sites to verify that protective measures are operating as designed and are adequate to prevent impairments in ecological functions. Status and corrective actions taken are documented in the records. It is acceptable for records to contain only qualitative visual observation data.

Near-total conformance (4): Visual monitoring records are available for review for all environmentally sensitive areas or structures on or adjacent to farm sites to verify that protective measures are operating as designed and appear adequate to prevent impairments in ecological functions. Status and corrective actions are not documented. It is acceptable for records to contain only qualitative visual observation data.

Moderate conformance (3): Visual monitoring records are available for review, but records are unclear as to how effective the protective measures are at protecting the sensitive areas. Status and corrective actions are not documented.

Some conformance (2): Visual monitoring records are available for review; records indicate some deterioration of one or more sensitive sites which is not being addressed by corrective actions.

Minimal conformance (1): Visual monitoring records are available for review; records indicate significant deterioration of one or more sensitive sites which is not being addressed by corrective actions. Or, visual monitoring occurs but observations are not documented.

Non-conformance (0): Visual monitoring does not occur.

Not applicable: No environmentally sensitive sites in or around field or greenhouse production sites. Auditors should confirm that in fact there are no environmentally sensitive areas including bodies of water, natural habitat, wellheads, housing, office buildings, etc.

2.01.04 Quantitative data (10 points): Are quantitative data collected on the quality of sensitive areas at production sites?

Total conformance (5): Quantitative measures of the quality of all sensitive areas at the field and/or greenhouse production sites are recorded. Example measurements include monitoring of water quality measures, incoming irrigation or processing water testing, outgoing runoff or wastewater testing, air quality testing, biodiversity surveys and soil loss estimates. Status and corrective actions taken are documented in the records. At least three measurements have been recorded to establish trends.

Moderate conformance (3): Quantitative measures of the quality of all sensitive areas at the field and/or greenhouse production sites are recorded. Status and corrective actions are not documented. At least three measurements have been recorded to establish trends.

Some conformance (2): Quantitative measures of the quality of all sensitive areas at the field and/or greenhouse production sites are recorded, and data indicate some deterioration of sensitive areas. Status and corrective actions are not documented.

Minimal conformance (1): Quantitative measures of the quality of all sensitive areas at the field and/or greenhouse production sites are recorded, and data indicate significant deterioration of sensitive areas.

Non-conformance (0): Quantitative data is not collected on the quality of sensitive areas at field and/or greenhouse production sites.

Not applicable: No environmentally sensitive sites in or around field or greenhouse production sites. Auditors should confirm that in fact there are no environmentally sensitive areas including bodies of water, natural habitat, wellheads, housing, office buildings, etc.

2.01.04.a Improvement over time (5 points): Do quantitative data on the quality of sensitive areas at production sites show improvement over time?

Total conformance (5): Recorded quantitative measures of quality of sensitive areas at field and/or greenhouse production sites show improvement of 80% or more of these areas over time. For quantitative measures to show improvement, more than three measurement dates must be available, and the most recent measurement must be within the last year.

Near-total conformance (4): Recorded quantitative measures of quality of sensitive areas at field and/or greenhouse production sites show improvement of 60% or more of these areas over time. For quantitative measures to show improvement, more than three measurement dates must be available, and the most recent measurement must be within the last year.

Moderate conformance (3): Recorded quantitative measures of quality of sensitive areas at field and/or greenhouse production sites show improvement of 40% or more of these areas over time. For quantitative measures to show improvement, more than three measurement dates must be available, and the most recent measurement must be within the last year.

Some conformance (2): Recorded quantitative measures of quality of sensitive areas at field and/or greenhouse production sites show improvement of 20% or more of these areas over time. For quantitative measures to show improvement, more than three measurement dates must be available, and the most recent measurement must be within the last year.

Minimal conformance (1): Recorded quantitative measures of quality of sensitive areas at field and/or greenhouse production sites show improvement of less than 20% of these areas over time. For quantitative measures to show improvement, more than one measurement date must be available, and the most recent measurement must be within the last year.

Non-conformance (0): Less the three data points exist, and therefore not sufficient to show a trend over time, or data do not show improvement in environmentally sensitive areas over time.

Not applicable: No environmentally sensitive sites in or around field or greenhouse production sites. Auditors should confirm that in fact there are no environmentally sensitive areas including bodies of water, natural habitat, wellheads, housing, office buildings, etc.

2.01.05 Biodiversity conservation (40 points): Does the organization restore or conserve habitat for native species and wildlife to promote biodiversity?

Total conformance (5): The organization restores and/or conserves habitat for native species and wildlife to promote biodiversity. Habitat areas are established over the long term via conservation easements; internal policies; investment in, or purchase of, off-site managed wildlife habitat or other measures, and may include the following: unmanaged pastures for bird habitat, pollinator-friendly cover crops allowed to bloom, habitat corridors, bird or bat boxes, forested areas, aquatic habitat with buffers, riparian zones planted with trees/shrubs to minimize erosion or other measures. At least two habitat areas are year-round, and areas are maintained via one or more of the following measures: invasive species removed, native species planted, riparian buffer repaired/reseeded, pollinator nesting sites identified and protected, plants with continuous bloom throughout growing season provided, prescribed burns, or other measures.

Near-total conformance (4): The organization restores and/or conserves habitat for native species and wildlife to promote biodiversity. Habitat areas are established over the long term via conservation easements, internal policies, investment in, or purchase of, off-site managed wildlife habitat or other measures, and may include a variety of habitat types (see above). At least one habitat area must be year-round, e.g., not cover crops, and habitat is maintained via one or more of the measures described above.

Moderate conformance (3): The organization restores and/or conserves habitat for native species and wildlife to promote biodiversity. Habitat areas are not necessarily established long term; they may include a variety of habitat types (see above). At least one habitat area is year-round, e.g., not cover crops, and habitat is maintained via one or more of the measures described above.

Some conformance (2): The organization restores and/or conserves habitat for native species and wildlife to promote biodiversity. Habitat areas may include a variety of habitat types (see above). At least one habitat area is year-round; habitat is not actively maintained.

Minimal conformance (1): The organization restores and/or conserves habitat for native species and wildlife to promote biodiversity. Habitat areas may include a variety of habitat types (see above). Habitat is not year-round.

Non-conformance (0): Organization does not restore or conserve habitat for native species and wildlife.

2.01.06 Pollinator habitat (60 points): Does the organization create habitat and forage sources for pollinators?

Total conformance (5): Organization creates permanent, dedicated habitat that includes a diversity of season-long floral and nesting resources for pollinators. Habitat is established over the long term via conservation easements specifically for pollinator habitat; internal policies or investment in, or purchase or funding of, off-site managed habitat. Habitat is maintained by measures such as invasive species removal, controlled burns, or planting of native species. Habitat is 3% or more of the acreage in the scope of the audit. It may be on-site or off-site within the growing region.

Near-total conformance (4): Organization creates permanent, dedicated habitat that includes a diversity of season-long floral and nesting resources for pollinators. Habitat is established over the long term via conservation easements specifically for pollinator habitat; internal policies or investment in, or purchase or funding of, off-site managed habitat. Habitat is maintained by measures such as invasive species removal, controlled burns, or planting of native species. Habitat is 1 – 2.9% of the acreage in the scope of the audit. It may be on-site or off-site within the growing region.

Moderate conformance (3): Organization creates permanent, dedicated habitat that includes a diversity of season-long floral and nesting resources for pollinators. Habitat is established via conservation

easements specifically for pollinator habitat; internal policies or investment in, or purchase or funding of, off-site managed habitat. Habitat is less than 1% of acreage in the scope of the audit. It may be on-site or off-site within the growing region.

Some conformance (2): Organization creates habitat that includes a diversity of season-long floral and nesting resources for pollinators. Habitat may be temporary and/or seasonal but is present for at least the length of the growing season and is maintained for pollinator benefit while in existence, e.g., cover crops are allowed to bloom. It may be on-site or off-site within the growing region.

Minimal conformance (1): Organization creates pollinator habitat that does not exist for the full duration of the growing season.

Non-conformance (0): Organization does not create habitat and foraging resources for pollinators.

2.01.07 Reducing impacts of managed bees (20 points): Does the operation employ measures to reduce ecological impacts of any managed pollinators used in production?

Total conformance (5): Operation employs at least three measures to reduce ecological impacts of managed honeybees, bumble bees or other managed pollinators. Measures may include regularly inspecting managed bee hives for disease and parasites, locating bee hives at least 0.5 miles from designated wildlife habitats, using native managed bee species when possible, providing supplemental forage such as flowering cover crops where the primary cash crop is not in bloom, or other measures. Measures are informed by relevant data sources, and justification for measures is provided to auditor.

Moderate conformance (3): Operation employs two measures to reduce ecological impacts of managed honeybees, bumble bees or other managed pollinators. Measures are informed by relevant data sources and justification for measures is provided to auditor.

Some conformance (2): Operation employs two measures to reduce ecological impacts of managed honeybees, bumble bees or other managed pollinators. Measures are explained to auditor but not necessarily justified or informed by relevant data.

Minimal conformance (1): Operation employs one measure to reduce ecological impacts of managed honeybees, bumble bees or other managed pollinators. Measures are not necessarily justified or informed by relevant data.

Non-conformance (0): Operation does not employ measures to reduce ecological impacts of managed honeybees, bumble bees or other managed pollinators.

Not applicable: Managed pollinators are not used.

Environmental Emergency Management

2.02.01 Emergency procedures posted (10 points): Are emergency contact information and basic staff procedures readily available at likely locations in the event of possible emergencies including natural disasters? (E.g., vehicle accident, fire, worker pesticide exposure, earthquake)

Total conformance (5): Emergency contact information and basic staff procedures are readily and conspicuously available at all likely locations in the event of an emergency, including vehicle storage and maintenance, fertilizer and pesticide storage, fuel storage, fuel, fertilizer and pesticide loading facilities, etc. Procedures address a range of possible emergencies including natural disasters (earthquake, tornado, etc.). Workers are aware of the posting locations and procedures before they become necessary for use.

Near-total conformance (4): Emergency contact information and basic staff procedures are readily and conspicuously available at most of the likely locations in the event of an emergency, including vehicle storage and maintenance, fertilizer and pesticide storage, fuel storage, fuel, fertilizer and pesticide loading facilities, etc. Procedures address a range of possible emergencies including natural disasters (earthquake, tornado, etc.). Workers are aware of the posting locations and procedures before they become necessary for use.

Moderate conformance (3): Emergency contact information and basic staff procedures are readily and conspicuously available at most or all of the likely locations in the event of an emergency, including vehicle storage and maintenance, fertilizer and pesticide storage, fuel storage, fuel, fertilizer and pesticide loading facilities, etc. Procedures address a range of possible emergencies but do not address natural disasters (earthquake, tornado, etc.). Workers are aware of the posting locations and procedures before they become necessary for use.

Some conformance (2): Emergency contact information and basic staff procedures are available at most of the likely locations in the event of an emergency but are missing procedures for some potential emergencies and do not address natural disasters. Workers may or may not be aware of the posting locations or procedures.

Minimal conformance (1): Emergency contact information or basic staff procedures (but not both) are readily available at likely locations in the event of an emergency. Information is incomplete and/or outdated.

Non-conformance (0): Emergency contact information and basic staff procedures are not readily available.

2.02.02 Environmental emergency management plans (15 points): Are written environmental emergency management plans available in the event of emergencies, including potential emergencies, staff roles and responsibilities, and resources for response, control, containment and/or cleanup? Are employees trained on the emergency management plans?

Total compliance (5): Environmental emergency management plans are written, readily accessible and contain a list of potential emergencies, emergency contacts, staff roles and responsibilities and resources for control, containment and cleanup, and staff training procedures. Emergencies addressed include environmental contamination and worker exposure, e.g., vehicle accident, fire, fuel, fertilizer or pesticide leak or spill as well as earthquake, tornado or volcanic eruption in areas prone to those events. Plans, including relevant roles and contacts, are reviewed at least annually to determine if updates are needed. Employees are trained on the environmental emergency management plans.

Near-total conformance (4): Environmental emergency management plans are written, readily accessible, but are missing one of the following elements: list of potential emergencies, emergency contacts, staff roles and responsibilities and resources for control, containment and cleanup, or staff training procedures. Emergencies addressed include environmental contamination and worker exposure, e.g., vehicle accident, fire, fuel, fertilizer or pesticide leak or spill as well as earthquake, tornado or volcanic eruption in areas prone to those events. Plans, including relevant roles and contacts, are reviewed at least annually to determine if updates are needed. Employees are trained on the environmental emergency management plans.

Moderate conformance (3): Environmental emergency management plans are written, readily accessible, but are missing two of the following elements: list of potential emergencies, emergency contacts, staff roles and responsibilities and resources for control, containment and cleanup, or staff training procedures. Emergencies addressed are missing one of the following types of emergencies: environmental contamination, worker injury or exposure risks, and natural disasters. Plans, including

relevant roles and contacts, are reviewed at least annually to determine if updates are needed. Employees are trained on the environmental emergency management plans.

Some conformance (2): Environmental emergency management plans are written and readily accessible but are missing two of the following elements: list of potential emergencies, emergency contacts, staff roles and responsibilities and resources for control, containment and cleanup, or staff training procedures. Emergencies addressed are missing two of the following types of emergencies: environmental contamination, worker injury or exposure risks, and natural disasters.

Minimal conformance (1): Environmental emergency management plans are written and readily accessible, but only contain one or two elements and types of emergencies. Workers are not trained on the environmental emergency management plans.

Non-compliance (0 points): Emergency management plans do not exist or are not readily accessible.

Fertilizer and Pesticide Drift

2.03.01 Equipment calibration (40 points): Are pesticide and nutrient application equipment calibrated at least annually or more frequently if recommended by the manufacturer and are procedures (methods) and results documented?

Total conformance (5): All fertilizer and pesticide application equipment are calibrated at least annually or more frequently if recommended in equipment manuals or advisor-documented instruction. Written calibration records include the calibration procedures used, results of the calibration and adjustments made, and are available for at least the past three growing seasons.

Near-total conformance (4): All fertilizer and pesticide application equipment are calibrated at least annually or more frequently if recommended in equipment manuals or advisor-documented instruction. Written calibration records exist but are missing one of the following elements: the calibration procedures used, results of the calibration or adjustments made. Records are available for at least the past three growing seasons.

Moderate conformance (3): All fertilizer and pesticide application equipment are calibrated at least annually. Written calibration records exist but are missing two of the following elements: the calibration procedures used, results of the calibration or adjustments made. Records are available for at least the past two growing seasons.

Some conformance (2): All fertilizer and pesticide application equipment are calibrated at least annually. Written calibration records do not exist.

Minimal conformance (1): Some but not all fertilizer and pesticide application equipment are calibrated at least annually. Written calibration records do not exist.

Non-conformance (0): Fertilizer and pesticide application equipment are not calibrated annually, and written calibration records do not exist.

Not applicable: Fertilizers and pesticides are not applied.

2.03.02 Drift mitigation plans (40 points): Are comprehensive drift management plans containing the following elements written and implemented?

- Training protocol for staff
- Weather conditions that are unsafe for specific types of pesticide applications
- Information to help applicator select or adjust formulations, additives, equipment, techniques, or other options to reduce drift
- Contact information for those requiring notification if unexpected drift has occurred.
- List of practices in place to mitigate pesticide

Total conformance (5): Drift management plans are written, implemented and are available for review for all production sites where applications are made. The drift management plan contains all of the required elements. Contracted applicators have provided a written drift management plan or be trained on the protocol in the auditee's drift management plan.

Near-total conformance (4): Drift management plans are written, implemented and available for review for all production sites where applications are made. The drift management plan is missing one of the required elements. Contracted applicators have provided a written drift management plan but have not been trained on the protocol in the auditee's drift management plan.

Moderate conformance (3): Drift management plans are written, implemented and available for review for all production sites where applications are made. The drift management plan is missing two of the required elements OR contracted applicators have not provided a written drift management plan and have not been trained on the protocol in the auditee's drift management plan.

Some conformance (2): Drift management plans are written and available for review for all production sites where applications are made. The drift management plan is missing two of the required elements AND contracted applicators have not provided a written drift management plan and have not been trained on the protocol in the auditee's drift management plan.

Minimal conformance (1): Drift management is practiced but written plans do not exist.

Non-conformance (0): Drift management plans are not written and available for review.

Not applicable: Fertilizers and pesticides are not applied.

Soil Health

2.04.01 Erosion mitigation (60 points): Does the organization mitigate the risk of soil erosion?

Total conformance (5): Three or more protective measures are in place at all farm locations under control of the organization where the threat of soil erosion exists from wind or water and are functioning sufficiently such that eroded areas are non-existent or minimal, temporary and being corrected. Example protective measures include wind breaks, retention ponds, in-field grass strips, enclosed production, terraces, contour plantings, water bars, mulches, managed drainage, vegetative buffers, filter strips or established vegetation. Greenhouse operations are expected to mitigate potential soil erosion on land around greenhouse facilities. Auditee can provide an explanation for the measures taken to protect areas from the threat of soil erosion and cite the use of scientific resources.

Near-total conformance (4): Two or more protective measures are in place at all locations under control of the organization where the threat of soil erosion exists from wind or water. Eroded areas are minimal and are being corrected. Auditee can provide an explanation for the measures taken to protect areas from the threat of soil erosion.

Moderate conformance (3): Two or more protective measures are in place at all locations under control of the organization where the threat of soil erosion exists from wind or water. Some signs of erosion are present and indicate that erosion mitigation measures should be improved or expanded. Auditee can provide an explanation for the measures taken to protect areas from the threat of soil erosion.

Some conformance (2): One protective measure is in place at locations under control of the organization where the threat of soil erosion exists from wind or water, but is insufficient to mitigate erosion, and signs of erosion are present and appear ongoing. Plans are being made to improve, expand or add new erosion mitigation measures.

Minimal conformance (1): One protective measure is in place at fewer than half of the locations under control of the organization where the threat of soil erosion exists from wind or water, and is insufficient to mitigate erosion. Signs of erosion are present, appear ongoing and/or are not being addressed.

Non-conformance (0): Protective measures are not in place in areas where the threat of soil erosion from wind or water exists.

2.04.02 Advanced soil health testing (20 points): Does the organization monitor and record advanced soil health indicators?

Total conformance (5): Organization monitors and records advanced soil health indicators on all production acres. At least four of the following indicators are measured by collecting at least one measure per field at least once every three years: organic carbon concentrate, carbon mineralization potential, compaction, infiltration rate, soil respiration, structure, aggregate stability, texture, earthworm populations, salinity, available water capacity, surface hardness, active carbon, potentially mineralizable N, root health rating and micronutrients.

Near-total conformance (4): Organization monitors and records advanced soil health indicators on all production acres. At least three of the following indicators are measured by collecting at least one measure per field at least once every three years: organic carbon concentrate, carbon mineralization potential, compaction, infiltration rate, soil respiration, structure, aggregate stability, texture, earthworm populations, salinity, available water capacity, surface hardness, active carbon, potentially mineralizable N, root health rating and micronutrients.

Moderate conformance (3): Organization monitors and records advanced soil health indicators on all production acres. At least two of the following indicators are measured by collecting at least one measure per field at least once every three years: organic carbon concentrate, carbon mineralization potential, compaction, infiltration rate, soil respiration, structure, aggregate stability, texture, earthworm populations, salinity, available water capacity, surface hardness, active carbon, potentially mineralizable N, root health rating and micronutrients.

Some conformance (2): Organization monitors and records three to four advanced soil health indicators on less than half of production acres, or one advanced soil health indicator on all acres.

Minimal conformance (1): Organization monitors and records one or two advanced soil health indicators on less than half of production acres.

Non-conformance (0): Organization does not monitor or record advanced soil health indicators.

Not Applicable: Product is not grown in soil.

2.04.03 Improving soil health (100 points): Does the organization implement adequate protective/corrective measures for maintaining or improving soil health indicators?

Total conformance (5): Organization implements three or more protective/corrective measures across 80 to 100% of production acres to improve and maintain soil health. Example measures include reduced/conservation tillage, cover crops/green manures, organic soil amendments, flotation tires, reduced tire air pressure, dual wheels, fixed travel lanes and reduced trips across field. Auditee provides an explanation for the measures taken and cites the use of scientific resources.

Near-total conformance (4): Organization implements two protective/corrective measures across 80 to 100% of production acres to improve and maintain soil health. Auditee provides an explanation for the measures taken and cites scientific resources.

Moderate conformance (3): Organization implements two protective/corrective measures across at least 60% of production acres to improve and maintain soil health. Auditee provides an explanation for the measures taken and cite the use of scientific resources.

Some conformance (2): Organization implements two protective/corrective measures across at least 40% of production acres to improve and maintain soil health. See example measures above. Auditee provides an explanation for the measures taken.

Minimal conformance (1): Organization implements one protective/corrective measure across at least 60% of production acres, or two measures on at least 20% of production acres to improve and maintain soil health. Auditee does not provide an explanation for the measures taken or cite the use of scientific resources.

Non-conformance (0): Organization does not use adequate protective or corrective measures for soil health.

Not Applicable: Product is not grown in soil.

2.04.04 Soil health improvement goals (40 points): Has the organization set at least two goals for maintaining or improving soil health indicators?

Total conformance (5): Organization has met at least two specific, measurable, time-bound goals for improvement in soil health indicators since the previous audit (or for new applicants, within the previous three years). Quantitative data are collected to measure changes in soil health indicators, and the organization has at least three years of data. Quantitative measures include, but are not limited to organic carbon concentrate, carbon mineralization potential, compaction, infiltration rate, soil respiration, structure, aggregate stability, texture, earthworm populations, salinity, available water capacity, surface hardness, organic matter, active carbon, potentially mineralizable N, root health rating and micronutrients.

Near-total conformance (4): Organization has made progress towards at least two goals or met at least one goal for improvement in soil health indicators since the previous audit (or for new applicants, within the previous three years). Quantitative data are collected to measure changes in soil health indicators, and the organization has between one and three years of data (see above for example measures).

Moderate conformance (3): Organization has made progress towards at least two goals for improvement in soil health indicators since the previous audit (or for new applicants, within the previous three years). Quantitative data are collected to measure changes in soil health indicators, and the organization has less than one year of data (see above for example measures).

Some conformance (2): Organization has made progress towards at least one goal for improvement in soil health indicators since the previous audit (or for new applicants, within the previous three years). Quantitative data are collected to measure changes in soil health indicators, and the organization has one to three years of data.

Minimal conformance (1): Organization has set at least one goal for improvement in soil health indicators, but has not made progress, since the previous audit (or for new applicants, within the previous three years). Quantitative data are collected to measure changes in soil health indicators, and the organization has less than one year of data.

Non-conformance (0): The organization has not set goals to improve soil health indicators.

Not Applicable: Product is not grown in soil.

Water Conservation

2.05.01 Prevent contamination (20 points): Does the organization implement measures to prevent water contamination with sediment, nutrients and pesticides?

Total conformance (5): Organization implements effective measures to prevent contamination from sediment, nutrients *and* pest management, and if applicable, effective salinity management. Measures are implemented across all operations.

- For sediment/drainage management, example measures include establishing vegetation cover (hedgerows, herbaceous barriers, windbreak/shelterbelts and vegetated field borders) in areas sensitive to erosion that drain into waterways, contour buffer strips/terracing, conservation tillage, mulching around crops and cover cropping and cross wind trap strips/planting perpendicular to the prevailing wind direction, scheduling drip irrigation based on crop need.
- For nutrient management, example measures include establishing minimum setback distance (approx. 35 feet) between application area and closest waterway (including canals, ditches, sink holes, etc.), nutrients applied via drip irrigation based on testing to determine crop need.
- For pest management, these measures may include using a "smart sprayer" (e.g. target-sensing sprayers) and other technologies that improve application precision, minimum distance (approx. 35 feet) between application area and closest waterway (including canals, ditches, sink holes, etc.), pesticide applications in enclosed greenhouses, use of non-chemical pest management strategies to reduce need for pesticides, closed system hydroponics.
- For salinity management (applicable in cases such as high water table, irrigated agriculture in dry regions), example measures include identifying saline recharge and discharge areas by testing and managing irrigation water to minimize salt delivery to surface and ground water.

Near-total conformance (4): Organization implements effective measures to prevent water contamination in all four categories listed above. Measures are implemented across at least 80% of operations.

Moderate conformance (3): Organization implements effective measures to prevent water contamination in three of the four categories listed above. Measures are implemented across at least 60% of operations.

Some conformance (2): Organization implements effective measures to prevent water contamination in two of the four categories listed above. Measures are implemented across at least 40% of operations.

Minimal conformance (1): Organization implements effective measures to prevent water contamination in one of the four categories listed above. Measures are implemented across at least 20% of operations.

Non-conformance (0): The organization does not implement measures to prevent contamination of the ground/surface water with fertilizers, pesticides or sediment.

2.05.02 Irrigation based on crop need (10 points): Does the organization make irrigation decisions based on documented crop need(s)?

Total conformance (5): Organization makes irrigation decisions based on science-based methods to determine the crop's irrigation need across all (100% of) production acres. Irrigation need considers soil moisture, evapotranspiration and rainfall. Example methods include scheduling irrigation, using soil moisture data from electronic sensors or hand measurements or monitoring evapotranspiration or others.

Near-total conformance (4): Organization makes irrigation decisions based on science-based methods to determine the crop's irrigation need across at least 80% of production acres.

Moderate conformance (3): Organization makes irrigation decisions based on science-based methods to determine the crop's irrigation need across at least 60% of production acres.

Some conformance (2): Organization makes irrigation decisions based on science-based methods to determine the crop's irrigation need across at least 40% of production acres.

Minimal conformance (1): Organization makes irrigation decisions based on science-based methods to determine the crop's irrigation need across at least 20% of production acres.

Non-conformance (0): The organization does not use science-based methods to inform decisions on irrigation (e.g. calendar-based irrigation).

Not Applicable: Dryland systems not using irrigation.

2.05.03 Irrigation use efficiency (20 points): Is irrigation use efficiency calculated and recorded?

Total conformance (5): Organization calculates irrigation use efficiency, e.g., units of water per unit of product for all crop production. Irrigation use efficiency can be calculated by determining the ratio of acre-inches of water applied per mass of crop, or by using the Stewardship Index for Specialty Crops Applied Water Use Efficiency metric or Simple Irrigation Efficiency metric. Metrics are available at SISC Metrics. Results are calculated annually, and the organization has at least three years of data to track trends. Results and trends inform new practices/policies.

Near-total conformance (4): Organization calculates irrigation use efficiency using SISC metric(s) and/or other calculations. Organization has one to three years of data. Results are calculated annually and used to inform new practices/policies.

Moderate conformance (3): Organization calculates irrigation use efficiency using SISC metric(s) and/or other calculations. Organization has less than one year of data. Results will be calculated annually and used to inform new practices/policies.

Some conformance (2): Organization calculates irrigation use efficiency using SISC metric(s) and/or other calculations. Organization has less than one year of data and data has not yet been used to inform new practices/policies.

Non-conformance (0): The organization does not calculate irrigation use efficiency.

Not Applicable: Dryland systems not using irrigation.

2.05.04 Irrigation efficiency improvements (40 points): Does the organization implement measures to improve irrigation water use efficiency?

Total conformance (5): Organization implements at least three measures to improve irrigation water use efficiency over 80 to 100% of production acres, or one or more highly advanced, industry leading irrigation efficiency measures on more than 50% of production acres. Example of fairly standard measures include drop nozzles installed on overhead irrigation, furrow/flood irrigation replaced by overhead or drip, processing water reused for irrigation, shading to reduce evapotranspiration, laser leveling flood-irrigated fields. Advanced, industry-leading measures include closed-loop irrigation systems in greenhouses, and integrated irrigation management systems that monitor or predict rainfall, monitor soil and/or plant moisture using technologies such as soil probes or precipitation/evaporation monitoring, schedule irrigation based on precise field conditions and crop needs and integrate features like shutoff devices triggered by rainfall, flow meters for irrigation pumps and variable rate irrigation.

Near-total conformance (4): Organization implements at least three measures to improve irrigation water use efficiency on 60 to 80% of production acres, or one or more highly advanced, industry leading measures on more than 25% of production acres.

Moderate conformance (3): Organization implements at least three measures to improve irrigation water use efficiency on 40 to 60% of production acres, or one or more highly advanced, industry leading measures on less than 25% of production acres.

Some conformance (2): Organization implements at least two measures to improve irrigation water use efficiency over 60% of production acres.

Minimal conformance (1): Organization implements at least one measure to improve irrigation water use efficiency over 60% of production acres.

Non-conformance (0): The organization does not implement measures to improve irrigation water use efficiency.

Not Applicable: Dryland systems not using irrigation.

Energy Conservation

2.06.01 Energy efficiency on-farm (40 points): Does the organization implement energy efficiency measures to reduce energy used for crop production?

Total conformance (5): Organization uses at least three measures across 95 to 100% of production acres that reduce crop production energy use. Energy use for crop production includes electrical and fuel energy sources and energy intensive inputs (e.g. pesticides and fertilizers, which require a large amount of energy to produce). Energy use efficiency is defined as using less energy to perform the same task or produce the same result. Example measures for reducing crop production energy use include the use of electric vehicles; tractor auto-steering; reduced tillage or other practices that reduce trips across the field; improving energy efficiency of irrigation pumps; reducing petroleum-based and/or energy-intensive inputs (e.g., synthetic fertilizers); updating the efficiency of heating systems with regular maintenance; updating the efficiency cooling systems, double coverings, thermal screens and/or additional insulation to improve insulation and reduce heat loss from greenhouse structures; and sealing/weatherstripping greenhouse structures to minimize air leaks.

Near-total conformance (4): Organization implements at least three measures across at least 80% of production acres to reduce energy use (see above for examples).

Moderate conformance (3): Organization implements at least two measures across at least 80% of production acres to reduce energy use (see above for examples).

Some conformance (2): Organization implements at least two measures across at least 60% of production acres to reduce energy use (see above for examples).

Minimal conformance (1): Organization implements at least one measure across at least 60% of production acres to reduce energy use (see above for examples).

Non-conformance (0): The organization does not implement measures to reduce production energy use, or measures are implemented on less than 60% of production acres.

2.06.01.a Improvement over time (30 points): Has the organization improved energy use efficiency?

Total conformance (5): Organization has documented an improvement in energy use efficiency over the past three years as a result of practice changes that improve *both* electrical and fuel energy efficiency. Energy use efficiency is defined as using less energy to perform the same task or produce the same result. Electrical energy *and* fuel use efficiency are calculated and improved for the whole farm operation or across all farms within the scope of the audit. This can be calculated by converting all electricity and fuel use to a standard unit of measure (e.g., joules), preferably utilizing local conversion factors or generic if local are unavailable, by using the Stewardship Index for Specialty Crops Energy Use Metric, *or* by tracking both electricity use efficiency and fuel use efficiency separately and calculating these uses of energy per unit of production (e.g., per acre, per unit of yield). Electricity use efficiency is calculated as kWh/unit of production and fuel use efficiency is calculated using gallons or liters/unit of production. The auditee has documentation of energy use efficiency calculations, of which show an improvement in overall energy use efficiency (using a standard unit of measure) *or* electricity use efficiency *and* fuel use efficiency across all crop production acreage in the scope of the audit over the most recent three-year period.

For conversion factors for US systems, reference Energy conversion calculators - U.S. Energy Information Administration (EIA). For other regions, find a reputable conversion resource, or research other similar authorities for other regions.

Moderate conformance (3): Organization has documented an improvement in energy use efficiency over the past three years as a result of practices changes that improve *either* electrical or fuel energy efficiency. Energy use efficiency is defined as using less energy to perform the same task or produce the same result. Energy use efficiency is calculated and improved for the whole farm operation or across all farms within the scope of the audit, accounting for electricity *or* fuel usage. This can be calculated either by using the Stewardship Index for Stewardship Index for Specialty Crops Energy Use Metric for fuel or electricity use, *or* by tracking electricity use efficiency or fuel use efficiency. Use efficiencies are calculated as energy or fuel usage per unit of production. Electricity use efficiency is calculated using as kWh/unit of production and fuel use efficiency is calculated as gallons or liters/unit of production. The auditee has documentation of energy use efficiency calculations which show an improvement in electricity use efficiency *or* fuel use efficiency over the most recent three-year period across all crop production acreage in the scope of the audit.

Non-conformance (0): Organization has *either* not documented an improvement in energy use efficiency over the past three years *or* documentation does not show improvement over time as a result of one or more practice changes that improve energy efficiency or reduce energy intensity.

Not Applicable: Organization does not implement energy efficiency measures to reduce energy used for crop production

2.06.02 Renewable energy on-farm (40 points): Does the organization use renewable energy for crop production?

Total conformance (5): Organization sources more than 20% of on-farm energy from renewable sources. This may include renewable energy generated onsite or renewable energy purchased from an energy provider.

Near-total conformance (4): Organization sources 15.1 to 20% of on-farm energy from renewable sources. This may include renewable energy generated onsite or renewable energy purchased from an energy provider.

Moderate conformance (3): Organization sources 10.1 to 15% of on-farm energy from renewable sources. This may include renewable energy generated onsite or renewable energy purchased from an energy provider.

Some conformance (2): Organization sources 5.1 to 10% of on-farm energy from renewable sources. This may include renewable energy generated onsite or renewable energy purchased from an energy provider.

Minimal conformance (1): Organization sources less than 5% of on-farm energy from renewable sources. This may include renewable energy generated onsite or renewable energy purchased from an energy provider.

Non-conformance (0): No on-farm energy is sourced from renewable sources.

IPM and Nutrient Management

2.07.01 IPM resources (100 points): Does the organization access IPM information resources?

Total conformance (5): Organization regularly accesses sources of reputable, unbiased IPM information for all key pests being managed. Unbiased resources may include crop and region-specific production guides from universities or government agencies, in-season update bulletins/newsletters, Extension bulletins and government-developed resources (e.g., USDA Crop Profiles or Pest Management Strategic Plans). IPM information is consulted in the IPM decision-making process.

Near-total conformance (4): Organization accesses sources of reputable, unbiased IPM information for most key pests being managed. Unbiased resources may include crop and region-specific production guides from universities or government agencies, in-season update bulletins/newsletters, Extension bulletins and government-developed resources (e.g., USDA Crop Profiles or Pest Management Strategic Plans). IPM information is consulted in the IPM decision-making process.

Moderate conformance (3): Organization accesses sources of reputable, unbiased IPM information for some key pests being managed.

Some conformance (2): Organization infrequently accesses sources of reputable, unbiased IPM information for some key pests being managed.

Minimal conformance (1): Organization infrequently accesses IPM information from any source.

Non-conformance (0): Organization does not access IPM information.

2.07.02 Identification (Minimum Requirement, score of 4 required for certification) (100 points): Does the organization identify key pests (those which usually require action to prevent economic losses) and understand key pest biology?

Total conformance (5): All relevant/key organization staff, including individuals contracted by the organization can identify key pests (i.e., insects, diseases, weeds and any other pests which usually require action to prevent economic losses) and understand key pest biology. Relevant organization staff understand pest life cycles and can identify the pest life cycle in relation to crop growth stages, crop-damaging life stage and important behaviors related to pest management.

Near-total conformance (4): All relevant/key organization staff, including individuals contracted by the organization can identify key pests (i.e., insects, diseases, weeds and any other pests which usually require action to prevent economic losses) and understand key pest biology. Relevant organization staff can identify the pest life cycle in relation to crop growth stages, crop-damaging life stage and important behaviors related to pest management.

Moderate conformance (3): Some relevant/key organization staff can identify key pests (i.e., insects, diseases, weeds and any other pests which usually require action to prevent economic losses) and understand key pest biology. Relevant organization staff can identify crop-damaging life stage and important behaviors related to pest management.

Some conformance (2): Some relevant/key organization staff can identify key pests (i.e., insects, diseases, weeds and any other pests which usually require action to prevent economic losses). Relevant organization staff can identify crop-damaging life stage but do not necessarily understand other aspects of pest biology.

Minimal conformance (1): Some relevant/key organization staff can identify some but not all key pests (i.e., insects, diseases, weeds and any other pests which usually require action to prevent economic losses). Relevant organization staff cannot identify crop-damaging life stage and important behaviors related to pest management.

Non-conformance (0): Organization and staff are unable to identify key pests.

2.07.03 Prevention (Minimum Requirement, score of 4 required for certification) (100 points): Does the organization implement effective non-chemical strategies to prevent losses by key pests?

Total conformance (5): Organization has identified and implemented effective non-chemical strategies to prevent losses by each key pest for each crop in the scope of application/certification and can explain or provide justification for how the strategies implemented prevent key pests, and strategies are effective to the extent that they reduce use of pesticides. Non-chemical strategies may include cultural, mechanical, physical and biological options. A list of strategies for each key pest is available for review, and effective measures are adopted across at least 80% of production acres.

Near-total conformance (4): Organization has identified and implemented effective non-chemical strategies to prevent losses by each key pest for each crop in the scope of application/certification and can explain or provide justification for how the strategies implemented prevent key pests. Non-chemical strategies include cultural, mechanical, physical and biological options. A list of strategies for each key pest is available for review, and effective measures are adopted across at least 60% of production acres.

Moderate conformance (3): Organization has identified and implemented effective non-chemical strategies to prevent losses by each key pest for each crop in the scope of application/certification. Non-chemical strategies may include cultural, mechanical, physical and biological options. Effective measures

are adopted across at least 60% of production acres. Justification and/or a list of strategies for each pest are not available for the measures implemented.

Some conformance (2): Organization has identified and implemented effective non-chemical strategies to prevent losses by each key pest for each crop in the scope of application/certification. Non-chemical strategies may include cultural, mechanical, physical and biological options. Effective measures are adopted across at least 40% of production acres. Justification and/or a list of strategies for each pest are not available for the measures implemented, and chemicals are the primary pest management strategy.

Minimal conformance (1): Minimal adoption (less than 40% of production acres) of some non-chemical strategies. Chemicals are the primary pest management strategy.

Non-conformance (0): Organization does not implement any effective non-chemical pest management strategies.

2.07.04 Monitoring (Minimum Requirement, score of 4 required for certification) (100 points): Does the organization implement effective scouting, sampling and monitoring techniques for all key pests for which these techniques are available?

Total conformance (5): Organization staff or contracted experts implement effective, systematic scouting, sampling and monitoring techniques for all key pests for which techniques are available. Monitoring occurs at the expert-recommended frequency. Techniques may include visual sampling, insect traps/sweep nets, weed mapping, use of degree day models, disease risk models and Extension crop/region pest alerts or forecasts. Monitoring, where applicable, also includes monitoring for predator species that prey on pests, and monitoring weather conditions. Scouting/monitoring records are available for each key pest.

Near-total conformance (4): Organization staff or contracted experts implement effective, systematic scouting, sampling and monitoring techniques for all key pests for which techniques are available. Monitoring occurs at the expert-recommended frequency. Techniques may include visual sampling, insect traps/sweep nets, weed mapping, use of degree day models, disease risk models, and Extension crop/region pest alerts or forecasts. Monitoring does not include either monitoring for predator species that prey on pests or monitoring weather conditions. Scouting/monitoring records are available for each key pest.

Moderate conformance (3): Organization staff or contracted experts implement effective, systematic scouting, sampling and monitoring techniques for most key pests for which techniques are available. Monitoring is less frequent than the expert-recommended frequency *or* does not include monitoring for predator species that prey on pests or monitoring weather conditions. Scouting/monitoring records are available for most key pests.

Some conformance (2): Organization staff or contracted experts implement effective scouting, sampling and monitoring techniques for some key pests for which techniques are available. Monitoring is less frequent than the expert-recommended frequency *and* does not include monitoring for predator species that prey on pests or monitoring weather conditions. Scouting/monitoring records are available for some key pests.

Minimal conformance (1): Organization staff or contracted experts infrequently implement effective scouting, sampling and monitoring techniques for some key pests for which techniques are available.

Non-conformance (0): Organization staff and contracted experts do not implement effective scouting, sampling and monitoring techniques.

2.07.05 Economic thresholds (Minimum Requirement, score of 4 required for certification) (100 points): Does the organization use science-based economic thresholds to determine if and when to take action for each key pest for which thresholds are available?

Total conformance (5): Organization uses science-based economic thresholds (also called action thresholds) to determine whether and when to take action for each key pest for which thresholds are available. Thresholds and the source of the threshold are documented for each key pest and may be based on visual sampling counts for pests or damage; trap, sweep net counts; specific weather conditions favorable to disease development; and/or crop prices and costs of control measures. Pest management action is taken only when pest populations exceed the economic threshold.

Near-total conformance (4): Organization uses science-based economic thresholds (also called action thresholds) to determine whether and when to take action for each key pest for which thresholds are available. Thresholds are documented for each key pest (though not the source of the threshold) and may be based on visual sampling counts for pests or damage; trap, sweep net counts; specific weather conditions favorable to disease development; and/or crop prices and costs of control measures. Pest management action is taken only when pest populations exceed the economic threshold.

Moderate conformance (3): Organization uses science-based economic thresholds (also called action thresholds) to determine whether and when to take action for most key pests for which thresholds are available. Thresholds are documented for most pests. Pest management action is taken only when pest populations exceed the economic threshold.

Some conformance (2): Organization uses science-based economic thresholds (also called action thresholds) to determine whether and when to take action for some key pests for which thresholds are available. Thresholds are documented for some pests. Pest management action is taken only when pest populations exceed the economic threshold.

Minimal conformance (1): Organization uses science-based economic thresholds (also called action thresholds) to determine whether and when to take action for some key pests for which thresholds are available. Thresholds are documented for some pests. Pest management action is sometimes implemented even when economic thresholds have not been exceeded.

Non-conformance (0): Organization does not use science-based action thresholds to determine whether and when to take action for key pests.

2.07.06 Non-chemical interventions (Minimum Requirement, score of 4 required for certification) (100 points): Are effective non-chemical intervention strategies - cultural, biological, and/or mechanical - implemented to manage key pests?

Total conformance (5): Organization identifies and implements effective non-chemical intervention strategies. Strategies include habitat for natural enemies (e.g., beetle banks), companion planting, trap cropping, mulching or cultivation for weed control, implementing physical barriers (e.g., floating row covers, fruit bagging), intercropping and others. Organization tracks and reduces pesticide use over time while maintaining crop quality and yield through implementation of non-chemical intervention strategies. Records are available and show long-term reduction in pesticide use; use in one year may increase or decrease due to differences in weather, pest populations and other factors. Strategies are evaluated and adjusted based on efficacy.

Near-total conformance (4): Organization identifies and implements effective non-chemical intervention strategies. Organization tracks and reduces pesticide use over time while maintaining crop quality and yield through implementation of non-chemical intervention strategies. Records are available but do not

yet show long-term reduction in pesticide use; use in one year may increase or decrease due to differences in weather, pest populations and other factors. Strategies are evaluated and adjusted based on efficacy.

Moderate conformance (3): Organization identifies and implements non-chemical intervention strategies. Organization tracks and reduces pesticide use over time while maintaining crop quality and yield. Records are available and show long-term reduction in pesticide use; use in one year may increase or decrease due to differences in weather, pest populations and other factors. Strategies are evaluated based on efficacy.

Some conformance (2): Organization identifies and implements non-chemical intervention strategies. Organization tracks and reduces pesticide use over time while maintaining crop quality and yield. Records are available and show long-term reduction in pesticide use; use in one year may increase or decrease due to differences in weather, pest populations and other factors. Strategies are not evaluated or adjusted based on efficacy.

Minimal conformance (1): Organization identifies and implements non-chemical intervention strategies. Organization tracks and reduces pesticide use over time while maintaining crop quality and yield. Records are available and show long-term increases in pesticide use; use in one year may increase or decrease due to differences in weather, pest populations and other factors.

Non-conformance (0): Organization does implement non-chemical intervention strategies.

2.07.07 Pesticide use justification (Minimum Requirement, score of 4 required for certification) (40 points): Are pesticide applications tied to a documented need?

Total conformance (5): All pesticide applications are tied to a documented need such as pest populations exceeding an economic threshold, specific weather conditions being favorable to disease, written documentation from a credible source supporting the need for a preventative application, Extension regional pest alerts or a crop and site-specific history of problems. The organization can explain justification for applications and support explanation with up-to-date documentation.

Near-total conformance (4): All pesticide applications are tied to a documented need such as pest populations exceeding an economic threshold, specific weather conditions being favorable to disease, written documentation from a credible source supporting the need for a preventative application, Extension regional pest alerts or a crop and site-specific history of problems. The organization can explain justification for applications and support explanation with documentation.

Moderate conformance (3): More than 60% of pesticide applications are tied to a documented need. The organization can explain justification for applications.

Some conformance (2): More than 40% of pesticide applications are tied to a documented need. The organization can explain justification for applications.

Minimal conformance (1): More than 20% of pesticide applications are tied to a documented need. The organization can explain justification for applications.

Non-conformance (0): Pesticide applications are not tied to a documented need. The organization cannot provide justification for applications or support explanation with documentation.

Not applicable: No pesticides are used.

2.07.08 Pesticide application records (Minimum Requirement, score of 4 required for certification) (10 points): Are there complete and legible pesticide application records for the current season that include location, date, time, material applied, REI, rate, applicator name, application method, wind speed and direction, air temperature and target pest?

Total conformance (5): For third-year auditees, pesticide application records are complete and legible and available for at least the three preceding years for all operations in the scope, including location, date, time, material applied, restricted entry interval (REI), rate, applicator name, application method, wind speed and direction, air temperature and target pest. For new or second-year applicants whose records do not contain these elements, there is a written policy clearly stating that complete records will be maintained for a minimum of three years going forward.

Near-total conformance (4): For third-year auditees, pesticide application records are complete and legible and available for at least the three preceding years for all operations in the scope. One of the following is missing from records: location, date, time, material applied, restricted entry interval (REI), rate, applicator name, application method, wind speed and direction, air temperature and target pest. For new or second-year applicants whose records do not contain these elements, there is a written policy clearly stating that complete records will be maintained for a minimum of three years going forward.

Moderate conformance (3): For third-year auditees, pesticide application records are complete and legible and available for at least the three preceding years for all operations in the scope. Two of the following are missing from records: including location, date, time, material applied, restricted entry interval (REI), rate, applicator name, application method, wind speed and direction, air temperature and target pest. For new or second-year applicants whose records do not contain these elements, there is a written policy clearly stating that complete records will be maintained for a minimum of three years going forward.

Some conformance (2): For third-year auditees, pesticide application records are complete and legible and available for at least the three preceding years for all operations in the scope. Three of the following are missing from records: location, date, time, material applied, restricted entry interval (REI), rate, applicator name, application method, wind speed and direction, air temperature and target pest. For new or second-year applicants whose records do not contain these elements, there is a written policy clearly stating that complete records will be maintained for a minimum of three years going forward.

Minimal conformance (1): For third-year auditees, pesticide application records are complete and legible and available for at least the three preceding years for all operations in the scope. Four or more of the following are missing from records: location, date, time, material applied, restricted entry interval (REI), rate, applicator name, application method, wind speed and direction, air temperature and target pest. For new or second-year applicants whose records do not contain these elements, there is a written policy clearly stating that complete records will be maintained for a minimum of three years going forward.

Non-conformance (0): For third-year auditees, pesticide application records are not complete and legible or not available for at least three years for all operations in the scope. For new or second-year applicants, no written policy exists.

Not applicable: No pesticides are used.

2.07.09 Pesticide risk reduction (40 points): Is pesticide risk tracked and reduced over time?

Total conformance (5): Organization tracks and reduces pesticide risk over time by transitioning to lower risk options, reducing pesticide use and/or by implementing mitigation measures. A 25% or greater reduction of pesticide risk has been achieved over multiple years. Tracking records are available and show

long-term reduction; risk in one year may increase or decrease due to differences in weather, pest populations and other factors. Options for tracking risk include the Pesticide Risk Tool (pesticiderisk.org), Environmental Impact Quotient or other documented methods developed by experts or the organization.

Near-total conformance (4): Organization tracks and reduces pesticide risk over time by transitioning to lower risk options, reducing pesticide use and/or by implementing mitigation measures. A 20% or greater reduction of pesticide risk has been achieved over multiple years. Tracking records are available and show long-term reduction; risk in any one year may increase or decrease due to differences in weather, pest populations and other factors.

Moderate conformance (3): Organization tracks and reduces pesticide risk over time by transitioning to lower risk options, reducing pesticide use and/or by implementing mitigation measures. A 10% or greater reduction of pesticide risk has been achieved over multiple years. Tracking records are available and show long-term reduction; risk in one year may increase or decrease due to differences in weather, pest populations and other factors.

Some conformance (2): Organization tracks and reduces pesticide risk over time by transitioning to lower risk options, reducing pesticide use and/or by implementing mitigation measures. A five to 10% risk reduction has been achieved over multiple years. Tracking records are available and show long-term reduction; risk in one year may increase or decrease due to differences in weather, pest populations and other factors.

Minimal conformance (1): Organization tracks and reduces pesticide risk over time by transitioning to lower risk options, reducing pesticide use and/or by implementing mitigation measures. Less than a 5% reduction of pesticide risk has been achieved over multiple years. Tracking records are available and show long-term reduction; risk in one year may increase or decrease due to differences in weather, pest populations and other factors.

Non-conformance (0): Organization does not track and reduce pesticide risk over time or tracking records are not available.

Not applicable: No pesticides are used.

2.07.10 Pesticide resistance identification (40 points): Does the organization identify specific pesticides and pests at the greatest risk for developing resistance?

Total conformance (5): The organization has contracted or has in-house capability to identify and group pesticides by modes of action and can report those for pesticides in use. The organization identifies specific current pesticide uses and pests at greatest risk for resistance for each crop in the scope of the application, and has written records documenting risks for resistance. Records for modes of action and for resistance risk are available for auditor review and used to inform resistance mitigation strategies.

Near-total conformance (4): The organization has contracted or has in-house capability to identify and group pesticides by modes of action and can report those for pesticides in use. The organization identifies specific current pesticide uses and pests at greatest risk for resistance for most of the crops in the scope of the application and has written records documenting risks for resistance. Records for modes of action and for resistance risk are available for auditor review and used to inform resistance mitigation strategies.

Moderate conformance (3): The organization has contracted or has in-house capability to identify and group pesticides by modes of action and can report those for pesticides in use. The organization identifies specific current pesticide uses and pests at greatest risk for resistance but does not have written records documenting modes of action and risks for resistance. Resistance risk information is used to inform resistance mitigation strategies.

Some conformance (2): Organization identifies specific current pesticide uses and pests at greatest risk for resistance but does not have written records documenting modes of action or risks for resistance. Resistance risk information has not been used to inform resistance mitigation strategies.

Minimal conformance (1): Organization identifies specific current pesticide uses *or* pests at greatest risk for resistance but does not have written records documenting modes of action or risks for resistance. Resistance risk information has not been used to inform resistance mitigation strategies.

Non-conformance (0): Organization does not identify and group pesticides by modes of actions and does not identify specific current pesticide uses and pests at greatest risk for resistance.

Not applicable: No pesticides are used

2.07.11 Pesticide resistance mitigation (Minimum Requirement, score of 4 required for certification) (50 points): Does the organization implement effective strategies to mitigate the risk of resistance for pests and pesticides at the greatest risk?

- Untreated refuges
- Crop rotation
- Rotating modes of action
- Tank mixing multiple modes of action
- Rotating chemical and non-chemical methods
- Use of mating disruption
- Other (scouting, monitoring and use of thresholds is not eligible for credit on this question.)

Total conformance (5): Organization implements four or more effective strategies to delay resistance for pesticides at the greatest risk of resistance across all production acres. Reducing reliance on pesticides through scouting, monitoring, thresholds and/or spot treatments is not eligible for credit on this question.

Near-total conformance (4): Organization implements three effective strategies to delay resistance for pesticides at the greatest risk of resistance across all production acres. Reducing reliance on pesticides through scouting, monitoring, thresholds and/or spot treatments is not eligible for credit on this question.

Moderate conformance (3): Organization implements two effective strategies to delay resistance for pesticides at the greatest risk of resistance across all production acres.

Minimal conformance (1): Organization implements one effective strategy to delay resistance for pesticides at the greatest risk of resistance.

Non-conformance (0): Organization does not implement strategies to delay resistance.

Not applicable: No pesticides are used

2.07.12 Evaluation (40 points): Does the organization formally assess performance of the IPM program including pest management successes failures?

Total conformance (5): Organization formally assesses performance of the IPM program overall including successes and failures. Pest management failures are assessed to identify the likely cause, considering potential causes such as incorrect rate or timing and the possibility of resistance. The possibility of resistance is explicitly considered as a potential cause of failure. Resistance is evaluated through multiple metrics, such as in-field check or comparison strips, post-treatment pest counts in the field and/or laboratory testing of samples collected on site. Assessment occurs annually and is used to adapt/improve the IPM program for the following year.

Near-total conformance (4): Organization formally assesses performance of the IPM program overall including successes and failures. Pest management failures are assessed to identify the likely cause, considering potential causes such as incorrect rate or timing and the possibility of resistance. Assessment occurs annually and is used to adapt/improve the IPM program for the following year.

Moderate conformance (3): Organization formally assesses performance of the IPM program overall including successes and failures but does not explicitly consider the possibility of resistance as a cause of pest management failure. Assessment has occurred in the past two years and is used to adapt/improve the IPM program.

Some conformance (2): Organization formally assesses performance of the IPM program overall including successes and failures but does not explicitly consider the possibility of resistance as a cause of pest management failure. The assessment occurred in the past two years but has not been used to inform/improve the IPM program.

Minimal conformance (1): Organization formally assesses performance of the IPM program overall including successes and failures but does not explicitly consider the possibility of resistance as a cause of pest management failure. The assessment is more than three years old and/or has not been used to inform/improve the IPM program.

Non-conformance (0): Organization does not formally assess performance of their IPM program.

2.07.13 Pesticide risk reduction for specific concerns (50 points): Does the organization rank pesticides used in crop production according to the following factors and reduce/restrict the use of those with greatest risk?

- Potential for residue post-harvest
- Acute toxicity to mammals
- Toxicity to beneficials including pollinators
- Chronic toxicity to mammals
- Additional eco-toxicity measures

Total conformance (5): Organization uses resources such as pesticide labels, expert publications, Pesticide Risk Tool (pesticiderisk.org) or pesticideinfo.org to rank pesticides used in crop production for all five of the above risk concerns and rankings are available for auditor review. Organization can demonstrate reduction of or restriction on use of pesticides with the greatest risk over time. Using the Pesticide Risk Tool is not a requirement if other written scientific evidence is available to support the ranked list.

Near-total conformance (4): Organization uses resources such as pesticide labels, expert publications, Pesticide Risk Tool (pesticiderisk.org) or pesticideinfo.org to rank pesticides used in crop production for four of the above risk concerns and rankings are available for auditor review. Organization can demonstrate reduction of or restriction on use of pesticides with the greatest risk over time. Using the Pesticide Risk Tool is not a requirement if other written scientific evidence is available to support the ranked list.

Moderate conformance (3): Organization uses resources such as pesticide labels, expert publications, Pesticide Risk Tool (pesticiderisk.org) or pesticideinfo.org to rank pesticides used in crop production for three of the above risk concerns and rankings are available for auditor review. Organization can demonstrate reduction of or restriction on use of pesticides with the greatest risk over time. Using the Pesticide Risk Tool is not a requirement if other written scientific evidence is available to support the ranked list.

Some conformance (2): Organization uses resources such as pesticide labels, expert publications, Pesticide Risk Tool (pesticiderisk.org) or pesticideinfo.org to rank pesticides used in crop production for two of the

above risk concerns and rankings are available for auditor review. Organization can demonstrate reduction of or restriction on use of pesticides with the greatest risk over time. Using the Pesticide Risk Tool is not a requirement if other written scientific evidence is available to support the ranked list.

Minimal conformance (1): Organization uses resources such as pesticide labels, expert publications, Pesticide Risk Tool (pesticiderisk.org) or pesticideinfo.org to rank pesticides used in crop production for one of the above risk concerns and rankings are available for auditor review. Organization can demonstrate reduction of or restriction on use of pesticides with the greatest risk over time. Using the Pesticide Risk Tool is not a requirement if other written scientific evidence is available to support the ranked list.

Non-conformance (0): Organization does not rank pesticides according to risk by any of the above-mentioned factors.

Not applicable: No pesticides are used

2.07.14 Pollinator protection (40 points): Does the organization protect bees and other pollinators from exposure to pesticides toxic to bees?

Total conformance (5): Organization implements at least three measures on 100% of production acres to protect bees and other pollinators from exposure to toxic pesticides (at least one measure is implemented across all acres). Example measures include not making applications to crops in bloom, preventing drift onto adjacent blooming plants attractive to pollinators; identifying pollinator habitat outside of cropped areas, and if present, buffers 60 ft. or greater are maintained around habitat to reduce risk from pesticide drift; making applications when most pollinators are less active, e.g., evening, night; informing beekeepers when, where, how and what pesticide(s) are being applied if managed bees are present in the area; apiaries and sites on the farm containing crops sensitive to pesticide drift are registered online at www.driftwatch.org or a similar system to enhance communication between growers and pesticide applicators and reduce drift incidents.

Near-total conformance (4): Organization implements three measures on at least 80% of production acres to protect bees and other pollinators from exposure to toxic pesticides (see above for examples).

Moderate conformance (3): Organization implements at least three measures on at least 60% of production acres to protect bees and other pollinators from exposure to toxic pesticides (see above for examples).

Some conformance (2): Organization implements at least two measures on at least 40% of production acres to protect bees and other pollinators from exposure to toxic pesticides (see above for examples).

Minimal conformance (1): Organization implements at least one measure on at least 20% of production acres to protect bees and other pollinators from exposure to toxic pesticides (see above for examples).

Non-conformance (0): Organization does not implement measures to protect bees and other pollinators form exposure to toxic pesticides.

Not applicable: No pesticides are used.

2.07.15 Basic nutrient testing (10 points): Does the organization monitor and record basic soil characteristics (i.e., N, P, K, organic matter, and pH) via soil and/or tissue analysis at least once every three years?

Total conformance (5): Organization monitors and records basic soil characteristics including nitrogen, phosphorus, potassium, organic matter and soil pH using soil tests and/or tissue analysis. Tests are

representative of 100% of production acres and are conducted for each field at least once every three years.

Near-total conformance (4): Organization monitors and records basic soil characteristics (see above). Tests are representative of 80% of production acres and are conducted at least once every three years.

Moderate conformance (3): Organization monitors and records basic soil characteristics (see above). Tests are representative of 60% of production acres and are conducted at least once every three years.

Some conformance (2): Organization monitors and records basic soil characteristics (see above). Tests are representative of 40% of production acres and are conducted at least once every three years.

Minimal conformance (1): Organization monitors and records basic soil characteristics (see above). Tests are representative of 20% of production acres, or, represent more production acres but are conducted less frequently than every three years.

Non-conformance (0): Organization does not monitor all soil health indicators.

Not applicable: Organic matter is not applicable to products not grown in soil.

2.07.16 Nutrient application records (Minimum Requirement, score of 4 needed to pass) (10 points): Are there complete and legible nutrient application records for the current season which include the location, date, time, material applied, rate, applicator name and application method?

Total conformance (5): For third-year auditees, nutrient application records for synthetic and organic amendments are complete and legible, and available for at least three years for all operations in the scope, including location, date, time, material applied, rate, applicator name and application method. For new or second-year applicants whose records do not contain these elements, there is a written policy clearly stating that complete records will be maintained for a minimum of three years going forward.

Near-total conformance (4): For third-year auditees, nutrient application records for synthetic and organic amendments are complete and legible, and available for at least three years for all operations in the scope. One of the following is missing: location, date, time, material applied, rate, applicator name and application method. For new or second-year applicants whose records do not contain these elements, there is a written policy clearly stating that complete records will be maintained for a minimum of three years going forward.

Moderate conformance (3): For third-year auditees, nutrient application records are complete and legible, and available for at least three years for all operations in the scope. Two of the following are missing: location, date, time, material applied, rate, applicator name and application method, or, records do not include organic amendments. For new or second-year applicants, there is a written policy clearly stating that these records will be maintained for a minimum of three years going forward.

Some conformance (2): For third-year auditees, nutrient application records are complete and legible, and available for at least three years for all operations in the scope. Three of the following are missing: location, date, time, material applied, rate, applicator name and application method, or records do not include organic amendments. For new or second-year applicants, there is a written policy clearly stating that these records will be maintained for a minimum of three years going forward.

Minimal conformance (1): For third-year auditees, nutrient application records are complete and legible, and available for at least three years for all operations in the scope. Four of the following are missing: location, date, time, material applied, rate, applicator name and application method. For new or second-

year applicants, there is a written policy clearly stating that these records will be maintained for a minimum of three years going forward.

Non-conformance (0): More than four elements are missing from nutrient application records and/or records do not exist.

Not applicable: No fertilizers (nutrients), synthetic or organic, are used.

2.07.17 Nutrient management (40 points): Do nutrient application rates reflect available nutrients and projected crop need, based on nutrient management planning?

Total conformance (5): Nutrient application rates reflect available nutrients and projected crop need, i.e., by nutrient management planning, for 100% of production acres. Nutrient application rates are determined by considering all of the following: soil and/or foliar analysis, nutrient crediting from prior to concurrent crops, and crop nutrient removal and requirements. For hydroponic operations this includes pH and electrical conductivity testing or other science-based techniques. Auditee maintains a written nutrient management plan that is available for review.

Near-total conformance (4): Nutrient application rates reflect available nutrients and projected crop need, i.e., by nutrient management planning, for at least 80% of production acres. Nutrient application rates are determined by at least three of the following: soil and/or foliar analysis, nutrient crediting from prior to concurrent crops, and crop nutrient removal and requirements. For hydroponic operations this includes pH and electrical conductivity testing or other science-based techniques. Auditee maintains a written nutrient management plan that is available for review.

Moderate conformance (3): Nutrient application rates reflect available nutrients and projected crop need, i.e., by nutrient management planning, for at least 60% of production acres. Nutrient application rates are determined by at least three of the following: soil and/or foliar analysis, nutrient crediting from prior to concurrent crops, and crop nutrient removal and requirements, or by another science-based method. For hydroponic operations this includes pH and electrical conductivity testing or other science-based techniques.

Some conformance (2): Nutrient application rates reflect available nutrients and projected crop need, i.e., by nutrient management planning, for at least 40% of production acres. Nutrient application rates are determined by at least two of the following: soil and/or foliar analysis, nutrient crediting from prior to concurrent crops, and crop nutrient removal and requirements, or by another science-based method. For hydroponic operations this includes pH and electrical conductivity testing or other science-based techniques.

Minimal conformance (1): Nutrient application rates reflect available nutrients and projected crop need, i.e., by nutrient management planning, for at least 40% of production acres. Nutrient application rates are determined by at least one of the following: soil and/or foliar analysis, nutrient crediting from prior to concurrent crops, and crop nutrient removal and requirements, or by another science-based method. For hydroponic operations this includes pH and electrical conductivity testing or other science-based techniques.

Non-conformance (0): Nutrient application rates do not reflect available nutrients and projected crop need.

Not applicable: No fertilizers (nutrients), synthetic or organic, are used.

2.07.18 Nutrient use efficiency (20 points): Is nutrient use efficiency calculated and recorded?

Total conformance (5): Organization calculates nutrient use efficiency, i.e., lbs. of nitrogen (N) and lbs. of phosphorous (P) applied per unit of product for all crop production. Nutrient use efficiency can be calculated by determining the ratio of lbs. of nutrients applied per mass of crop, or by using the Stewardship Index for Specialty Crops Nitrogen use and Phosphorous use metrics available at SISC Metrics or Field to Market calculators. Results are calculated annually, and the organization has at least three years of data to track trends. Results and trends inform new practices/policies.

Near-total conformance (4): Organization calculates nutrient use efficiency using SISC metric(s) and/or other calculations. Organization has one to three years of data. Results are calculated annually and used to inform new practices/policies.

Moderate conformance (3): Organization calculates nutrient use efficiency using SISC metric(s) and/or other calculations. Organization has less than one year of data. Results will be calculated annually and used to inform new practices/policies.

Some conformance (2): Organization calculates nutrient use efficiency using SISC metric(s) and/or other calculations. Organization has less than one year of data and data has not yet been used to inform new practices/policies.

Non-conformance (0): The organization does not calculate nutrient use efficiency.

Not applicable: No fertilizers (nutrients), synthetic or organic, are used.

2.07.19 Nutrient use efficiency improvements (40 points): Does the organization implement measures to improve nutrient use efficiency?

Total conformance (5): Nutrient use efficiency, i.e., N and P used per unit of crop produced, is tracked and shows improvement over time on at least 80% of production acres. Strategies to improve efficiency include auto-steering, variable rate application, cover crops and green manures, crop rotations with legumes, reduced tillage, timing application to match crop need/split applications and nutrient film technique (hydroponic producers). At least three seasons of nutrient use efficiency calculations are available in order to show trends, along with records of practices implemented. The most recent measurement must be within the last year.

Moderate conformance (3): Nutrient use efficiency, i.e., N and P used per unit of crop produced, is tracked and shows improvement over time on at least 50% of production acres. Strategies to improve efficiency include auto-steering, variable rate application, cover crops and green manures, crop rotations with legumes, reduced tillage, timing application to match crop need/split applications and nutrient film technique (hydroponic producers). At least three seasons of nutrient use efficiency calculations are available in order to show trends. There are no records of practices implemented, *or* the most recent nutrient use efficiency calculations are more than one year old.

Minimal conformance (1): Nutrient use efficiency, i.e., N and P used per unit of crop produced, is tracked and shows improvement over time on at least 20% of production acres. Strategies to improve efficiency include auto-steering, variable rate application, cover crops and green manures, crop rotations with legumes, reduced tillage, timing application to match crop need/split applications and nutrient film technique (hydroponic producers). At least three seasons of nutrient use efficiency calculations are available in order to show trends. There are no records of practices implemented, *and/or* the most recent nutrient use efficiency calculations are more than one year old.

Non-conformance (0): Nutrient use efficiency is not tracked or does not show improvement over time on any portion of production acres, or, less than three seasons of data are available and therefore insufficient to show trends over time.

Not applicable: No fertilizers (nutrients), synthetic or organic, are used.

Informational

2.08.01 Informational (0 points): Have any operations in the scope of the application been cited for off-target application of fertilizers or pesticides since the previous audit, or within the last three years for new applicants? If yes, has the operation made changes to reduce potential for off-target applications? (This question is informational only and does not affect the score.)

Organization describes citations from local, regional or federal regulatory authorities regarding off-target fertilizer and pesticide applications since the previous audit. New applicants report citation regarding, or incidence of, off-target fertilizer or pesticide application within the previous three years.

Facility-Level Checklist

Biodiversity and Environmental Protection

3.01.01 Protect sensitive areas (10 points): Does the facility map and protect all environmentally sensitive areas within and adjacent to facilities?

Total conformance (5): All environmentally sensitive areas are mapped, and protective measures are in place to protect all sensitive areas adjacent to facility sites. Environmentally sensitive areas include both natural area sites that support biodiversity, including (but not limited to) aquifers, wetlands, forests, grasslands, pollinator and/or beneficial insect habitat, riparian areas, and endangered/threatened species habitat, and human-made sites that have potential to be negatively impacted by agricultural activities, including wellheads, battery stations, fuel and chemical storage sites, storm drains, housing and office buildings. Effective and sufficient measures are in place to protect all sensitive areas near facility sites, such as undeveloped reserves, filter strips, signage (e.g., Do Not Enter), fencing, buffers, invasive plant removal, locked areas, adequate containment and enclosed production (greenhouse/hydroponic producers). Auditee can provide an explanation for the measures taken to protect sensitive areas and cite the use of scientific resources. Maps have been updated in the past three years and are used to inform practices and policies.

Moderate conformance (3): All environmentally sensitive areas are mapped, and protective measures are in place to protect more than half of all sensitive areas adjacent to facility sites. There are opportunities to expand protective measures in order to protect all sensitive sites. Auditee can provide an explanation for the measures taken to protect sensitive areas. One or more of the following is true: maps have not been updated in the past three years or are not used to inform practices and policies.

Minimal conformance (1): Environmentally sensitive areas or structures on or adjacent to facility sites are identified on a map; however, map(s) is/are incomplete, out of date and not used to inform practices and policies. Measures are in place to protect less than half of all sensitive areas adjacent to facility sites. There are opportunities to expand protective measures in order to protect all sensitive sites.

Non-conformance (0): Environmentally sensitive areas or structures are not identified. Protective measures are not in place to protect sensitive areas adjacent to facility sites.

3.01.02 Avoid sensitive areas (5 points): Are environmentally sensitive areas avoided when expanding facilities?

Total conformance (5): Environmentally sensitive areas have been avoided in the expansion of existing facilities and construction of new facilities since the last audit (or within the past year for new applications). In cases where new facilities are near environmentally sensitive areas, a buffer of at least 30 feet (9 meters) is present between the facility and the sensitive area.

Moderate conformance (3): Environmentally sensitive areas have been avoided in the expansion of existing facilities and construction of new facilities since the last audit (or within the past year for new applications). In cases where new facilities are near environmentally sensitive areas, buffers are less than 30 feet (9 meters).

Minimal conformance (1): Environmentally sensitive areas have been avoided in the expansion of existing facilities and construction of new facilities since the last audit (or within the past year for new applications). Facility expansion or addition has occurred near environmentally sensitive areas without adequate buffers.

Non-conformance (0): New facilities have been built directly in environmentally sensitive areas since the last audit (or within the past year for new applications).

Not applicable: No facility expansion has occurred since the previous audit (or within the past year for new applicants).

3.01.03 Visual monitoring (5 points): Are all environmentally sensitive areas within and adjacent to facilities visually monitored at least annually?

Total conformance (5): Visual monitoring records are available for review for all environmentally sensitive areas or structures on or adjacent to facility sites to verify that protective measures are operating as designed and are adequate to prevent impairments in ecological functions. Status and corrective actions taken are documented in the records. It is acceptable for records to contain only qualitative visual observation data.

Near-total conformance (4): Visual monitoring records are available for review for all environmentally sensitive areas or structures on or adjacent to facility sites to verify that protective measures are operating as designed and appear adequate to prevent impairments in ecological functions. Status and corrective actions are not documented. It is acceptable for records to contain only qualitative visual observation data.

Moderate conformance (3): Visual monitoring records are available for review, but records are unclear as to how effective the protective measures are at protecting the sensitive areas. Status and corrective actions are not documented.

Some conformance (2): Visual monitoring records are available for review, records indicate some deterioration of one or more sensitive sites which is not being addressed by corrective actions.

Minimal conformance (1): Visual monitoring records are available for review, records indicate significant deterioration of one or more sensitive sites which is not being addressed by corrective actions. Or, visual monitoring occurs but observations are not documented.

Non-conformance (0): Visual monitoring does not occur.

Not applicable: No environmentally sensitive sites in or around facility sites.

3.01.04 Quantitative data (10 points): Are quantitative data collected on the quality of sensitive areas at facilities?

Total conformance (5): Quantitative measures of the quality of all sensitive areas at the facilities are recorded. Example measurements include monitoring of water quality measures, incoming irrigation or processing water testing, outgoing runoff or wastewater testing, air quality testing, biodiversity surveys and soil loss estimates. Status and corrective actions taken are documented in the records. At least three measurements have been recorded to establish trends.

Moderate conformance (3): Quantitative measures of the quality of all sensitive areas at the facility sites are recorded. Status and corrective actions are not documented. At least three measurements have been recorded to establish trends.

Some conformance (2): Quantitative measures of the quality of all sensitive areas at the facility sites are recorded, and data indicate some deterioration of sensitive areas. Status and corrective actions are not documented.

Minimal conformance (1): Quantitative measures of the quality of all sensitive areas at the facility sites are recorded, and data indicate significant deterioration of sensitive areas.

Non-conformance (0): Quantitative data is not collected on the quality of sensitive areas at facility sites.

Not applicable: No environmentally sensitive sites in or around facility sites.

3.01.04.a Improvement over time (5 points): Do quantitative data on the quality of sensitive areas at facilities show improvement over time?

Total conformance (5): Recorded quantitative measures of quality of sensitive areas at facility sites show improvement of 80% or more of these areas over time. For quantitative measures to show improvement, more than three measurement dates must be available, and the most recent measurement must be within the last year.

Near-total conformance (4): Recorded quantitative measures of quality of sensitive areas at facility sites show improvement of 60% or more of these areas over time. For quantitative measures to show improvement, more than three measurement dates must be available, and the most recent measurement must be within the last year.

Moderate conformance (3): Recorded quantitative measures of quality of sensitive areas at facility sites show improvement of 40% or more of these areas over time. For quantitative measures to show improvement, more than three measurement dates must be available, and the most recent measurement must be within the last year.

Some conformance (2): Recorded quantitative measures of quality of sensitive areas at facility sites show improvement of 20% or more of these areas over time. For quantitative measures to show improvement, more than three measurement dates must be available, and the most recent measurement must be within the last year.

Minimal conformance (1): Recorded quantitative measures of quality of sensitive areas at facility sites show improvement of less than 20% of these areas over time. For quantitative measures to show improvement, more than one measurement date must be available, and the most recent measurement must be within the last year.

Non-conformance (0): Less the three data points exist, and therefore not sufficient to show a trend over time, or, data do not show improvement in environmentally sensitive areas over time.

Not applicable: No environmentally sensitive sites in or around facilities sites.

Environmental Emergency Management

3.02.01 Emergency procedures posted (10 points): Are emergency contact information and basic staff procedures readily available at likely locations in the event of possible emergencies including natural disasters? (E.g., vehicle accident, fire, worker pesticide exposure, earthquake).

Total conformance (5): Emergency contact information and basic staff procedures are readily and conspicuously available at all likely locations in the event of an emergency, including vehicle storage and maintenance, fertilizer and pesticide storage, fuel storage, fuel, fertilizer and pesticide loading facilities, etc. Procedures address a range of possible emergencies including natural disasters (earthquake, tornado, etc.). Workers are aware of the posting locations and information before it becomes necessary for use.

Near-total conformance (4): Emergency contact information and basic staff procedures are readily and conspicuously available at most of the likely locations in the event of an emergency, including vehicle storage and maintenance, fertilizer and pesticide storage, fuel storage, fuel, fertilizer and pesticide

loading facilities, etc. Procedures address a range of possible emergencies including natural disasters (earthquake, tornado, etc.). Workers are aware of the posting locations and procedures before they become necessary for use.

Moderate conformance (3): Emergency contact information and basic staff procedures are readily and conspicuously available at most or all of the likely locations in the event of an emergency, including vehicle storage and maintenance, fertilizer and pesticide storage, fuel storage, fuel, fertilizer and pesticide loading facilities, etc. Procedures address a range of possible emergencies but do not address natural disasters (earthquake, tornado, etc.). Workers are aware of the posting locations and procedures before they become necessary for use.

Some conformance (2): Emergency contact information and basic staff procedures are available at most of the likely locations in the event of an emergency but are missing procedures for some potential emergencies and do not address natural disasters. Workers may or may not be aware of the posting locations and procedures.

Minimal conformance (1): Emergency contact information or basic staff procedures (but not both) are readily available at likely locations in the event of an emergency. Information is incomplete and/or outdated.

Non-conformance (0): Emergency contact information and basic staff procedures are not readily available.

3.02.02 Environmental emergency management plans (15 points): Are written environmental emergency management plans available in the event of emergencies, including potential emergencies, staff roles and responsibilities, and resources for response, control, containment and/or cleanup? Are employees trained on emergency management plans?

Total compliance (5): Environmental emergency management plans are written, readily accessible and contain a list of potential emergencies, emergency contacts, staff roles and responsibilities and resources for control, containment and cleanup, and staff training procedures. Emergencies addressed include environmental contamination and worker exposure, e.g., vehicle accident, fire, fuel, fertilizer or pesticide leak or spill as well as earthquake, tornado or volcanic eruption in areas prone to those events. Plans, including relevant roles and contacts, are reviewed at least annually to determine if updates are needed. Employees are trained on the environmental emergency management plans.

Near-total conformance (4): Environmental emergency management plans are written, readily accessible, but are missing one of the following elements: list of potential emergencies, emergency contacts, staff roles and responsibilities and resources for control, containment and cleanup, and staff training procedures. Emergencies addressed include environmental contamination and worker exposure, e.g., vehicle accident, fire, fuel, fertilizer or pesticide leak or spill as well as earthquake, tornado or volcanic eruption in areas prone to those events. Plans, including relevant roles and contacts, are reviewed at least annually to determine if updates are needed. Employees are trained on the environmental emergency management plans.

Moderate conformance (3): Environmental emergency management plans are written, readily accessible, but are missing two of the following elements: list of potential emergencies, emergency contacts, staff roles and responsibilities and resources for control, containment and cleanup, and staff training procedures. Emergencies addressed are missing one of the following types of emergencies: environmental contamination, worker injury or exposure risks and natural disasters. Plans, including relevant roles and contacts, are reviewed at least annually to determine if updates are needed. Employees are trained on the environmental emergency management plans.

Some conformance (2): Environmental emergency management plans are written, readily accessible, but are missing two of the following elements: list of potential emergencies, emergency contacts, staff roles and responsibilities and resources for control, containment and cleanup and staff training procedures. Emergencies addressed are missing two of the following types of emergencies: environmental contamination, worker injury or exposure risks and natural disasters.

Minimal conformance (1): Environmental emergency management plans are written, readily accessible, but only contain one or two elements and types of emergencies. Workers are not trained on the environmental emergency management plans.

Non-compliance (0): Emergency management plans do not exist or are not readily accessible.

Water Conservation

3.03.01 Processing water use efficiency (20 points): Is processing water use efficiency calculated and recorded?

Total conformance (5): Organization calculates processing water use efficiency, e.g., units of processing water per unit of product for all product that comes through the facility. Processing water use efficiency can be calculated by determining the ratio of water used per mass of crop. Results are calculated annually, and the organization has at least three years of data to track trends. Results and trends inform new practices/policies.

Near-total conformance (4): Organization calculates processing water use efficiency. Organization has one to three years of data. Results are calculated annually and used to inform new practices/policies.

Moderate conformance (3): Organization calculates processing water use efficiency. Organization has less than one year of data. Results will be calculated annually and used to inform new practices/policies.

Some conformance (2): Organization calculates processing water use efficiency. Organization has less than one year of data and data has not yet been used to inform new practices/policies.

Non-conformance (0): The organization does not calculate processing water use efficiency.

Not Applicable: The operation does not use water for processing.

3.03.02 Processing efficiency improvements (40 points): Does the organization have measures in place to improve processing water use efficiency?

Total conformance (5): Organization implements at least three measures to improve processing water use efficiency across the whole facility, or one or more highly advanced, industry leading efficiency measures in more than half of the facility. Example measures include upgrading to processing equipment with greater water use efficiency (e.g., SmartWash system), updating policies to encourage water conservation practices by workers, implementing water reuse/recycling or other measures.

Moderate conformance (3): Organization implements two measures to improve processing water use efficiency across the whole facility, or one or more highly advanced, industry efficiency measures in less than half of the facility.

Minimal conformance (1): Organization implements one measure to improve processing water use efficiency across the whole facility.

Non-conformance (0): The organization does not implement measures to improve water efficiency at the facility level.

Not Applicable: The operation does not use water for processing.

Energy Conservation

3.04.01 Energy efficiency at facilities (40 points): Does the organization implement energy efficiency measures to reduce facility energy use?

Total conformance (5): Organization implements at least three measures across the whole facility to reduce energy use, or one or more highly advanced, industry leading efficiency measures in more than half of the facility. Example measures include improving the energy efficiency of processing equipment, installing energy-efficient lighting (i.e., LED), adjusting thermostat temperatures for maximum HVAC efficiency, making doors/windows weathertight or undergoing a third-party energy use audit and implementing recommendations.

Moderate conformance (3): Organization implements two measures to improve processing water use efficiency across the whole facility, or one or more highly advanced, industry efficiency measures in less than half of the facility.

Minimal conformance (1): Organization implements one measure to improve energy use efficiency across the whole facility.

Non-conformance (0): The organization does not implement measures to improve energy efficiency at the facility level.

3.04.01.a Improvement over time (30 points): Has the organization improved energy use efficiency?

Total conformance (5): Organization has documented an improvement in energy use efficiency over the past three years as a result of practice changes that improve *both* electrical and fuel energy efficiency. Energy use efficiency is defined as using less energy to perform the same task or produce the same result. Electrical energy *and* fuel use efficiency are calculated and improved for the whole facility operation or across all facilities within the scope of the audit. This can be calculated by tracking electricity use efficiency and fuel use efficiency per unit of production (e.g. unit of output) separately, or by converting all electricity and fuel use to a standard unit of measure (e.g., joules), preferably utilizing local conversions first or generic if unavailable, and calculating per unit of production. Electricity use efficiency is calculated as kWh/unit of production and fuel use efficiency is calculated as gallons or liters/unit of production. The auditee has documentation of energy use efficiency calculations which show an improvement in overall energy use efficiency (using a standard unit of measure) *or* improvement in both electricity use efficiency *and* fuel use efficiency across all facilities in the scope of the audit over the most recent three-year period.

For conversion factors for US systems, reference Energy conversion calculators - U.S. Energy Information Administration (EIA). For other regions, find a reputable conversion resource, or research other similar authorities for other regions.

Moderate conformance (3): Organization has documented an improvement in energy use efficiency over the past three years as a result of practices changes that improve *either* electrical or fuel energy efficiency. Energy use efficiency is defined as using less energy to perform the same task or produce the same result. Electricity use efficiency *or* fuel use efficiency is calculated and improved across all facilities within the scope of the audit. This can be calculated by tracking electricity use efficiency OR fuel use efficiency per unit of production (e.g. unit of output). Electricity use efficiency is calculated as kWh/unit of production and fuel use efficiency is calculated as gallons or liters/unit of production. The auditee has documentation of energy use efficiency calculations which show an improvement in electricity or fuel use efficiency over the most recent three-year period across all facilities covered in the audit.

Non-conformance (0): Organization has *either* not documented an improvement in energy use efficiency over the past three years OR documentation does not show improvement over time as a result of one or more practice changes that improve energy efficiency or reduce energy intensity.

Not applicable: Organization does not implement energy efficiency measures to reduce facility energy use.

3.04.02 Renewable energy at facilities (20 points): Does the organization use renewable energy to power facilities?

Total conformance (5): Organization sources more than 20% of electricity for facilities, e.g., packing or processing facilities, from renewable sources. This may include renewable energy generated onsite or renewable energy purchased from an energy provider.

Near-total conformance (4): Organization sources at least 15.1 to 20% electricity for facilities from renewable sources. This may include renewable energy generated onsite or renewable energy purchased from an energy provider.

Moderate conformance (3): Organization sources at least 10.1 to 15% of electricity for facilities from renewable sources. This may include renewable energy generated onsite or renewable energy purchased from an energy provider.

Some conformance (2): Organization sources at least 5.1 to 10% of electricity for facilities from renewable sources. This may include renewable energy generated onsite or renewable energy purchased from an energy provider.

Minimal conformance (1): Organization sources less than 5% of electricity for facilities from renewable sources. This may include renewable energy generated onsite or renewable energy purchased from an energy provider (see examples above).

Non-conformance (0): Facility does not use renewable energy.

Glossary

Aggregate stability
The ability of soil aggregates, or groups of soil particles, to resist disintegration when tillage, water, wind erosion or other disruptive forces act on the soil. Wet aggregate stability suggests how well a soil can resist raindrop impact and water erosion. Size distribution of dry aggregates can be used to predict resistance to abrasion and wind erosion.

Agricultural inputs
Materials used in the production of crops including seeds, transplants, rootstock, cuttings, fertilizers, crop protection products, adjuvants, growth promoters, predator additions, irrigation water and any other material inputs to the growing process.

Application equipment calibration
Process to ensure that input application equipment is operating properly by testing equipment measurements against a known value. Improperly calibrated equipment may cause either too little or too much of an input, e.g., pesticides, fertilizers, manure, compost, to be applied.

Available water capacity
The maximum amount of plant available water a soil can provide. It is an indicator of a soil's ability to retain water and make it sufficiently available for plant use.

Beneficial insect
Insects that provide a benefit, such as suppressing pests or providing pollination. The term “beneficials” in the context of a question addressing insects is used as a synonym to beneficial insects.

Beneficial species
Organisms that provide an agroecosystem benefit, such as suppressing pests. The term “beneficials” in a non-specific context refers to all beneficial species.

Biopesticide
Certain types of pesticides made up of living organisms or derived from the products of living organisms, such as microbes, bacteria, plant extracts, fatty acids or pheromones, and used to control pests.

Biosolid
Organic matter recycled from sewage for use in agriculture.

Buffer zone
An area of permanent vegetation that is maintained between agricultural fields and environmentally sensitive areas, including bodies of water. Buffers are intended to mitigate impacts of production on adjacent or nearby areas that can be impacted by agricultural activity by, for example, intercepting wastewater runoff or pesticide drift.

Commodity
An agricultural product that can be bought and sold. Also referred to as product.

Compaction
A compression of soil and decrease in pore space that results in poor water drainage, air movement and root growth.

Cover crop
A crop planted between or simultaneously with cash crops to help manage soil erosion, soil fertility, soil quality, water, weeds, pests, diseases, biodiversity and wildlife. Examples include legumes, cereals, grasses etc.

CRISPR
A tool of genetic modification adapted from natural defense mechanisms of bacteria. CRISPR technology can “cut and paste” strands of DNA, allowing scientists to precisely edit the genome of an organism. If foreign DNA is introduced in this process, the resulting organism is considered a GMO, however if DNA is deleted or cut and pasted within one organism, the resulting organism is not considered a GMO, according to the USDA.

Cultural practice
Agricultural practices that aim to disrupt the pest’s environment without the use of chemical substances to enhance crop health and prevent weed, pest or disease problems. Examples include turning under crop residues, sterilizing tools and equipment and harvesting early.

Drip irrigation
Irrigation method that reduces use of water and fertilizer by allowing water to drip slowly, either onto the soil surface or directly into the root zone, through a network of valves, pipes, tubing and emitters.

Evapotranspiration (ET)
The loss of water from the earth's surface through the combined processes of evaporation from soil and plant surfaces and plant transpiration. ET information is critical for irrigation system design and water management.

Environmentally sensitive areas
Natural area sites that support biodiversity, including (but not limited to) aquifers, wetlands, forests, grasslands, pollinator and/or beneficial insect habitat, riparian areas, and endangered/threatened species habitat, and human-made sites that have potential to be negatively impacted by agricultural production, including wellheads, battery stations, fuel and chemical storage sites, storm drains, housing and office buildings.

Facility operation
A handling operation carried out in one or several buildings where product is being handled. The type of Facility operation can be classified as: “Storage & Distribution Center”, “Cooling Cold Storage”, “Packinghouse” or “Processing”.

Auditees should not apply for multiple Sustainability Standard audits of different operation types at the same address, unless there is a processing facility and growing operation with the same address, is of different ownership or the auditee is pursuing **Group** certification.

Farm
A collection of growing operations carried out in an open or covered area for the production of fresh produce for human consumption. Farms include field and greenhouse operations.

Field operation
A growing operation carried out in the open for the production of fresh produce for human consumption.

Filter strips
An area of permanent herbaceous vegetation used to reduce sediment, organics, nutrients, pesticides and other contaminant loadings in runoff.

Food loss and waste
Edible, postharvest crop that is available for human consumption but is not consumed for any reason. “Loss” refers to the farm and processing level. “Waste” refers to the retailer and consumer level.

Furrow irrigation
Irrigation of farmland by water run in open furrows created in soil between the crop rows.

Genetically modified organisms (GMOs)
Organisms (i.e., plants, animals or microorganisms) in which the genetic material (DNA) has been altered in a way that does not occur naturally by mating and/or natural recombination. This term includes organisms modified using CRISPR technology if foreign DNA is introduced during the CRISPR gene-editing process, according to the USDA.

Green manure
Living plant material incorporated into the soil or killed and left on the surface for soil improvement, or when composed of legumes, to increase the soil N supply.

Greenhouse gases (GHGs)
Compounds that trap heat in the atmosphere. These gases include carbon dioxide, methane, nitrous oxide and fluorinated gases.

Greenhouse
A temporary or permanent enclosed structure where crops are grown in a controlled environment (also referred to as indoor agriculture or indoor production). Greenhouses do not include shade or hoop houses.

Ground nests
Similar in appearance to ant holes from above, about 70% of native bees nest in the ground and need access to the soil surface to dig their nest. Each female excavates her own nest tunnel and brood cells and stocks the cells with nectar and pollen.

Group
A self-designated assemblage of farms or facilities and its suppliers whose products and conduct adhere to a set of standards as designated through an Internal Management System.

Group leader

The designated organizer of the Group, often a packer or shipper, who maintains and implements the Group IMS and is responsible for internal audits of Group members. Also referred to as the IMS holder.

Group member
A farm or a facility within a Group that is not the Group leader.

Infiltration rate
The rate at which water on a soil surface enters the soil profile.

Integrated pest management (IPM)
A science-based decision-making process that identifies and reduces risks from pests and pest management related strategies. IPM coordinates the use of pest biology, environmental information and available technology to prevent unacceptable levels of pest damage by the most economical means while minimizing risk to people, property, resources and the environment.

Internal audit
An audit conducted by the Group leader (IMS holder) of Group members (may be performed by contractor). This may be a first- or second-party audit provided that all requirements outlined in the General Regulations are met.

Internal auditor
Staff position within the Group leader organization that conducts audits of Group members to ensure conformance to Sustainability Standard criteria and the Group IMS. The Group leader may contract out this role if sufficient internal capacity does not exist.

Internal Management System (IMS)
The collection of documents, SOPs, policies and protocols that dictate the standards to which members adhere in supplying their products to the Group.

IMS holder
The entity or organization that administers, implements, manages and/or maintains the IMS for the Group.

Invasive species
Designated by state or national agricultural or natural resource authorities as threatening to agricultural and/or horticultural crops and/or humans and livestock.

Key pest
An insect, disease, weed, mite, nematode or other organism that frequently causes crop damage exceeding a quality and economic threshold unless an action is taken to reduce the impact.

Large producer
Any producer that does not meet the criteria for small producer.

Micronutrient
A chemical element necessary in only extremely small amounts (less than 1 part per million in the plant) for the growth of plants. Micronutrients include boron, chloride, copper, iron, manganese, molybdenum and zinc.

Mitigation plan
Set of strategies that have been identified and implemented to reduce or eliminate the negative impact of pesticide applications on air, soil, water, plants, animals and humans.

Mode of action
Refers to how a particular chemical pesticide operates on the target pest. The Insecticide Resistance Action Committee (IRAC), Fungicide Resistance Action Committee (FRAC) and Herbicide Resistance Action Committee (HRAC) classify insecticides, fungicides and herbicides, respectively, by modes of action. Rotating chemical modes of action or combining multiple modes of action in a single application are primary strategies to delay the evolution of resistant pests.

Nutrient management
Management of rate, source, placement, and timing of plant nutrients and soil amendments to maximize economic benefit while minimizing environmental impacts.

Packinghouse
A type of facility where whole commodities are sorted and/or sized, may be minimally trimmed (not altered in form), washed or not washed, treated with post-harvest fungicide and/or wax applications and packed for commercial distribution and use by consumer or retail establishment. In this type of facility, no processing activities are performed, if so, a different type of facility operation shall be used. A Packinghouse facility covers the activities involved in the Storage & Distribution Center and Cooling/Cold Storage facilities.

Pest scouting
Systematic inspection of plantings to evaluate crop health, identify threats and inform and evaluate treatment decisions. Scouting can include counting pests or pest-damaged plants or plant parts, checking insect or disease spore traps, using drones to visually survey remote parts of fields, etc.

Pesticide
General term for a formulated chemical containing an active ingredient designed to kill, repel or otherwise suppress populations or activity of a particular pest or group of pests. This includes insecticides, fungicides, herbicides, miticides, fumigants, plant growth regulators, defoliants, desiccants, etc. Pesticide products approved for use in organic crops, such as those containing spinosad or Bt, are included in this definition.

Pesticide drift
Airborne movement of pesticides away from the intended target. Pesticide drift can affect everyone, both urban and rural communities, by having negative effects on human health and the environment.

Pollinator habitat
Landscape areas that provide a diversity of species that provide floral and nesting resources for pollinators throughout the season that are protected from pesticides toxic to pollinators (LD_{50} < 11 µg/bee). Largely, habitat for pollinators also benefits beneficial insects (e.g., grasses support both butterflies and caterpillars), and as such, habitat established to attract beneficial insects is also considered pollinator habitat for the purposes of this Standard, assuming it meets the definition of dedicated pollinator habitat. Pollinator habitat may be established, restored or protected, and may include hedgerows/windbreaks, riparian buffers, natural or underdeveloped areas, field and road borders, diverse cover crop mixes, gardens and/or fallow fields, so long as the habitat meets the definition of dedicated pollinator habitat. Cropland and non-flowering cover crops are not considered dedicated pollinator habitat due to their temporary nature, limited species diversity and/or potential proximity to fields being treated with pesticides toxic to pollinators. Dedicated habitat is permanent, i.e., is in the same location year-round, including dormant states. Temporary habitat is not planted in the same location annually.

University of California IPM Bee Precaution Pesticide Ratings provides information on toxicity to pollinators guidance on reducing pesticide impacts on pollinators: https://ipm.ucanr.edu/bee-precaution-pesticide-ratings/.

Processing facility
A type of facility where whole commodities are processed and altered in form by peeling, slicing, chopping, shredding, coring, or trimming, with or without washing, prior to being packaged for use by the consumer or a retail establishment (e.g., pre-cut, packaged, ready-to-eat salad mixes). In this type of facility, processing activities are being performed, if not, a different type of facility operation shall be used. A Processing facility covers the activities involved in the Storage & Distribution Center, Cooling/Cold Storage and Packinghouse facilities.

Records
Dated, written records.

Reduced tillage
Method of tillage in which the soil has been disturbed to a lesser extent relative to conventional tillage (plowed/harrow till). Reducing tillage can reduce soil erosion, loss of carbon from the soil into the atmosphere and energy consumption and costs.

Refuge
An area of a field not treated with pesticides to allow beneficial insects and susceptible pest organisms to survive. Also refers to a traditionally bred (non-GMO) crop area planted within GMO crop acreage to allow for the reproduction of pest species to mitigate the development of pest resistance to the pesticide incorporated into the GMO plant.

Resistance trait
A genetic trait or set of traits that provide a crop variety with the ability to withstand attack by a pest, disease or pesticide and remain virtually unaffected. May be bred traditionally, genetically engineered or arise inadvertently within a plant or pest population.

Resistant pest
Weeds, insects or other pests that have naturally evolved genetic resistance to specific chemical compounds or chemical modes of action after repeated exposure to the same chemical.

Riparian buffer
A vegetated region next to streams, rivers or wetlands designed to mitigate the flow of agricultural or wastewater runoff into the body of water.

Rotation
Alternating plantings of one type of plant with at least one other (e.g., corn followed by soybeans); alternating pesticides of one type (mode of action) with at least one other type (e.g., an organophosphate followed by a biopesticide).

Salinity management
The use of agronomic practices such as leaching, selection of salinity tolerant plants, soil/water amendments, etc. to mitigate the effects of dissolved salts that have been deposited onto cropland via irrigation water. Excessive salts (high salinity) in the root zone reduce water uptake and also may cause nutrient imbalance, affecting plant growth and yield. High concentration of specific ions can also become toxic to crops.

Sensitive site
Areas of the natural or built environment that may be negatively impacted by agricultural activities. Most growing operations have sensitive sites that can be protected from production activities, for

example, wetlands, aquifers, well heads, forests, schools, office buildings, endangered species habitat, etc.

Small producer
A producer with a gross cash farm income (GCFI) of less than $250,000 that relies on family labor.

Undeveloped reserve
A section of land that has been left untouched by farming, construction, etc. to preserve the natural habitat.

Wastewater
Any water that has been adversely affected in quality by man-made influence or pollutants. It comprises liquid waste discharged by domestic residences, commercial properties, industry and/or agriculture and can encompass a wide range of potential contaminants and concentrations.

Wood tunnel nest
Artificial nests consisting of wood blocks drilled with a large number of dead-end tunnels used to attract bees and promote their local population growth.