

primus **GFS**

2021

An internationally recognized Global Food Safety Initiative (GFSI) food safety audit scheme

QUESTIONS & EXPECTATIONS

PrimusGFS v3.2

MODULE 2

FARM

Good Agricultural Practices Requirements



POWERED



CONNECTED



SMART



SUPPORTED



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Introduction

PrimusGFS v3.2

Acknowledgements

PrimusGFS v3.2 aligns to the GFSI's v2020 benchmarking requirements and brings updates to address: stakeholder feedback, continued focus on FDA FSMA's Produce Safety and Preventive Control for Human Food, relevant recent best practice updates from commodity specific guidance documents, updates to GMP Applicability Charts, the addition of new corrective action closure requirements, updated scientific research metrics (e.g. mitigation buffer distances, produce wash water anti-microbial metrics), refined and improved GAP pesticide questions, and updates to question flow concerns where necessary (e.g., harvest practice questions).

Version 3.2 satisfies the needs of users from a local to a global scale with flexible modules developed to ensure strength in food safety programs, regulatory compliance, and marketability. Azzule Systems gained valuable feedback from several of our clients, as well as from Certification Bodies, Training Centers, and industry experts at-large during the implementation of PrimusGFS v3.1. We believe strongly in serving the needs of the various groups with which we collaborate, and in doing so worked to address all feedback and suggestions in the updated v3.2.

We are grateful to those individuals and companies that provided invaluable feedback to help continually improve PrimusGFS.

Azzule would like to thank the following individuals for their contributions to v3.2: Our Certification Bodies and Training Centers, and in alphabetical order, Ashley Bell (Cloche Technical Solutions), Barbara Hulick (Produce Alliance), Cailin Keaton (Pasquinelli Produce Co.), Clarisa Molina (SerKa Solutions, LLC), Sarah Schlicher, Todd Sebring (Hunt Bros), Mason Silva (Rancho Guadalupe), Enrique Urrutia, Bruce Wilkins (CoActive Food Group, LLC), Anamaria Witaszczyk (Farmbox Greens).

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PrimusGFS integrates automatically with the supply chain, compliance, and data management features of the Azzule platform which provide food producers the tools and the knowledge necessary to take action within their food safety program. Automation and integration also allow participating operations to gain market access and visibility in promoting their food safety commitments to a large network of current and potential customers.

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PrimusGFS v3.2

Questions & Expectations

MODULE 2: FARM

Good Agricultural Practices Requirements

(Sections 2.01 to 2.10)

This Module should be completed for each one of the farm operations in the scope of the organization's application.

CONTACT:







Please do not hesitate to contact us via email at **PrimusGFS@azzule.com** or by phone if you have any questions or concerns.



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GENERAL			
Question No.	Question	Total Points	Expectation
2.01.01 	Is there a designated person responsible for the operation's food safety program?	10 	There should be a designated on-site person/persons responsible for the operation's food safety program. They should have documented formal training or trained by someone that has formal credentials that is documented. This training should meet all state and federal requirements.
2.01.02	If the operation is growing under organic principles, is there written documentation of current certification by an accredited organic certification organization?	0	Information gathering question. Current certification by an accredited organic certification organization (national/local) should cover the audited crops, be on file and available for review. N/A if not growing under organic principles.
2.01.03 	Does the operation have a written food safety hygiene and health policy covering at least worker and visitor hygiene and health, infants and toddlers, animal presence in growing and storage areas, fecal matter, dropped product, blood and bodily fluids?	15 	There should be written food safety policy rules regarding worker and visitor personal hygiene, GAPs and health requirements. The policy should cover the rules related to hygiene and health (e.g., hand washing, eating/drinking, smoking, specific clothing rules, foreign material issues, cuts/wounds, illness rules, etc.), no infants and toddlers allowed in the growing area, what to do in the case of evidence of animals and/or fecal matter in the growing and/or storage areas, and what to do in the case of dropped product, and if the product comes into contact with blood or other bodily fluids. All workers and visitors should be issued a list of rules in the relevant languages and confirm by signing they understand and agree to abide. Training provided and associated records should meet local and national regulations.
SITE			
Question No.	Question	Total Points	Expectation
2.02.01	Is there a map that accurately shows all aspects of the operation, including water sources and fixtures used to deliver water used in the operation?	5	There is a map or similar document (photograph, drawing) that accurately shows the growing area(s), adjacent land use/features , location of permanent water fixtures and the flow of the water system, including any holding tanks and water captured for re-use. Permanent fixtures include wells, gates, reservoirs, returns and other above ground features. Septic systems, effluent lagoons or ponds, surface water bodies are also identified. Document should enable location of the water sources and the production blocks they serve.
2.02.02 	Are growing areas adequately identified or coded to enable trace back and trace forward in the event of a recall?	15 	Coding details (e.g. farm name or reference code, blocks of the growing area(s)) should be in sufficient detail to enable trace back and trace forward through the distribution system. Details of the coding need to be tied to the record keeping system (e.g., pesticide, fertilizer records, microbiological testing reports). There should be field maps available demonstrating the coding details used in the operation(s).

2.02.03	Has a documented risk assessment been conducted at least annually for the operation?	15	A documented risk assessment of the growing area, each water source and surrounding areas should be performed prior to the first seasonal planting and at least annually, and when any changes are made to the growing area, water sources and adjacent land. This should detail known or reasonable foreseeable risks/hazards, the specific microbial, chemical and physical risks and their severity and likelihood of occurring in the following areas: previous use of the growing area, adjacent land use (e.g., CAFO), water source risks from animal access, upstream contamination/runoff, proper well condition, water treatment, water capture, backflow, maintenance, cross contamination from leaching, cross connections, recirculating water, sewage and septic systems, etc. (chemical hazards e.g. heavy metals, perchlorate, etc., and microbial hazards e.g. pathogenic <i>E. coli</i>), water use, fertilizers, crop protection chemicals, worker health and hygiene, equipment and tools used for harvest, storage, transportation, topography of the land for runoff (% slope, soil type), prevailing weather conditions or weather events. and any other applicable areas. Farms and indoor agriculture operations following the CA or AZ LGMA should reference current metrics e.g. , a buffer zone of approximately 1,200 ft. (365m) for CAFO's with >1,000 head or 1 mile (1609m) for 80,000 head CAFO, which may increase or decrease after assessing the risks, determining, and deploying mitigation measures.
2.02.03a 	If any risk is identified, have corrective actions and/or preventative measures been documented and implemented?	15 	For any risks identified in the assessment, the operation should detail what practice is being done to minimize identified risk/hazard, how to measure/monitor the effectiveness of the practice, how often to measure, and how it is verified and recorded. There should be documented evidence/validation that corrective actions and/or preventative measures have been taken when any risk was identified and were adequate for the specific situation. If overhead, flood or furrow irrigation is used, there needs to be examples of how the operation is minimizing the risk.
2.02.04	Are the necessary food defense controls implemented in the operation?	10	The operation should have implemented the necessary controls for preventing intentional contamination of the product, high-risk areas, external areas and vulnerable points (i.e. those that are not permanently locked) . These measures should be based on the risk associated with the operation, as detailed in the food defense plan (1.08.02). Some high-risk areas of the operation include: personnel, visitors, contractors, computers, raw material receipt (raw materials, product and packaging), trucks (incoming and outbound), water sources, storage areas for product, materials, chemicals, production areas, shipping areas, utensils or other items used in the growing area, etc.
2.02.05	Is the exterior area immediately outside the growing area, including roads, yards and parking areas, free of litter, weeds and standing water?	5	Litter, waste, refuse, uncut weeds or grass and standing water within the immediate vicinity of the growing area may constitute an attractant or breeding place for rodents, insects or other pests, as well as microorganisms that may cause contamination.
2.02.06	Are control measures being implemented for the outside storage of equipment, pallets, tires, etc. (i.e. out of the mud, stacked to prevent pest harborage, away from the growing area)?	5	Incorrectly stored pallets and equipment can provide areas for pest harborage and/or cross contamination. Equipment should be stored at least 4" (10 cm) off the ground. Growers should check the stored equipment (e.g., irrigation pipes) periodically to ensure that it has not become a pest harborage area or dirty due to rains. Inventory checks should occur in order to ensure that these storage areas do not become full of unnecessary items.
2.02.07	Are garbage receptacles and dumpsters kept covered or closed?	5	All dumpsters and garbage receptacles should have a cover and be kept covered to prevent the attraction of insects, rodents and other pests. Fine mesh lids are acceptable. Just having the lids is not acceptable i.e. when not in use, the dumpsters and garbage receptacles should be closed. Dumpsters that are only used for dry non-food waste (e.g., paper, cardboard, etc.) are exempt from this requirement.



2.02.08 	Where soil, substrates or fertilizer (e.g., compost) are stored or handled, are measures in place to ensure seepage and runoff is collected or diverted and does not reach growing areas, product, or any of the water sources? A ZERO POINT DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.	15 	Soil, substrates and fertilizer (e.g., compost, compost teas, fish emulsions, fish meal, blood meal, bio-fertilizers, etc.) are stored in a manner to prevent contamination to the growing areas, product, or water sources. Containers should be structurally sound and not a source of runoff or contamination. There should be appropriate and effective barriers, coverings, soil berms, pits or lagoons to divert or collect potential run-off or threats from wind, as applicable. A ZERO POINT DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.
2.02.09 	Where there are fill stations for fuel or pesticides, is it evident that the location and/or use is not a risk of contamination to the product, water sources, growing areas, equipment, packaging materials, etc.?	15 	Fill station area should not be a risk of contamination to the product, water sources, production areas, equipment, packaging materials, etc.
2.02.10 	Is the audited area free from animal presence and/or animal activity (wild or domestic)? If Total Compliance , go to 2.02.11.	15 	Animals can represent potential contamination to the growing area, to the crop, to the field equipment, etc., and therefore, should not be present in the operations. Evidence of animal presence can include tracks, fecal matter, feathers, etc. Note: This includes any packaging or storage areas (e.g., equipment, agronomic inputs, chemicals).
2.02.10a 	Is the audited area free from any evidence of animal fecal matter ? A ZERO POINT (NON-COMPLIANCE) DOWNSCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.	15 	Fecal matter is a potential contaminant to the product being grown. Produce that has come into direct contact with fecal matter is not to be harvested. A "no harvest zone" of approximately 5ft (1.5 m) radius should be implemented unless or until adequate mitigation measures have been considered. If evidence of fecal matter is found, a food safety risk assessment should be conducted by qualified worker and include appropriate corrective and preventative actions. Consideration of the maturity stage and type of crop involved is required. Any evidence of human fecal matter in the growing area is an automatic failure (scored under 2.02.11).
2.02.11 	Is the audited area free from any evidence of human fecal matter? ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.	15 	Human fecal matter is a potential contaminant to the product being grown. Any evidence of human fecal matter in the growing area is an automatic failure. ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.
2.02.12 	Is the audited area free of evidence of infants and toddlers?	10 	Infants and toddlers can represent potential contamination to the growing area, to the crop, to packaging and should not be present in the operations, including chemical or equipment storage areas.











GROUND HISTORY









Question No.	Question	Total Points	Expectation
2.03.01	Were growing area(s) used for growing food crops for human consumption last season?	0	Information gathering question. Land should be purchased or leased that has previously been successfully utilized for growing crops without incidence.
2.03.02	Has the growing area(s) been used for any non-agricultural functions? If No, go to 2.03.03.	0	Informational Gathering Question. Purchase or lease of ground previously used for non-agricultural functions (e.g., toxic waste site, landfill, mining, extraction of oil or natural gas) should be avoided. Land should be purchased or leased that has previously been successfully utilized for growing produce for human consumption without incidence. http://www.epa.gov/superfund/health/index.htm .
2.03.02a 	If the growing area has been used previously for non-agricultural functions, have soil tests been conducted showing soil was negative or within an appropriate regulatory agency's approved limits for contaminants?	15 	If the growing area has been previously used for non-agricultural functions soil testing should be conducted to determine if the soil is free of contaminants (e.g. heavy metals, residues of persistent organic contaminants) that may still be present in the soil.
2.03.03	Has the growing area(s) been used for animal husbandry or grazing land for animals in the last 12 months ? If No, go to 2.03.04.	0	Informational Gathering Question. If the land was used previously for animal husbandry or grazing land for livestock, there should be a sufficient buffer time before growing a crop for human consumption.









2.03.03a 	If the land was used previously for animal husbandry or grazing land for livestock, has a risk assessment been performed?	10 	A risk assessment should be documented that includes recording the details of the animal grazing (commercial or domestic) and any risk reduction steps.
2.03.04	Has flooding from uncontrolled causes occurred on the growing area(s) since the previous growth cycle ? If No, go to 2.03.05.	0	Informational Gathering Question. This would be the case of: the flowing or overflowing of a field with water outside a grower's control that is reasonably likely to contain microorganisms of significant public health concern and is reasonably likely to cause adulteration of edible portions of fresh produce in that field.
2.03.04a 	If the growing area(s) and product was affected from the flood waters, is there documented evidence of a risk assessment and that corrective measures were taken to affected land and product?	15 	If the growing area and/or product were affected from the flood waters, there should be a documented risk assessment and evidence that corrective measures were taken with affected land and/or product (e.g., photographs, sketched maps, etc.). There should be proof that affected product and product within approximately 30ft (9.1m) of the flooding should not have been harvested for human consumption and that replanting on formerly flooded production ground has not occurred for approximately 60 days if the ground has dried out, unless testing as noted in 2.03.04b has occurred.
2.03.04b 	Have soil tests been conducted on the flooded area(s) showing the soil was negative or within an appropriate regulatory agency's approved limits for contaminants?	15 	If flooding has occurred on the farm, soil clearance testing should be conducted prior to planting, if planting is done earlier than 60 days from event and also before the soil has had adequate time to dry out. Soil testing should indicate soil levels of microorganisms lower than the standards for processed compost. Additional parameters to measure (e.g. heavy metals, pesticides, hydrocarbons) will depend on the characteristics of the flooding event. Suitable representative samples should be collected for the entire area suspected to have been exposed. If results indicate no issues, then the replanting time line can be reduced from approximately 60 days to approximately 30 days.
2.03.04c 	If septic or sewage systems adjacent to the growing area were affected by the flood waters, is there a documented inspection after flooding to ensure they are functioning properly and are not a source of contamination?	10 	There should be records of inspecting the sewage/septic systems after flooding, showing that they are functioning properly and are not a source of contamination (e.g. overflow).









ADJACENT LAND USE











Question No.	Question	Total Points	Expectation
2.04.01	Is the adjacent land to the growing area a possible source of contamination from intensive livestock production (e.g., feedlots, dairy operations, poultry houses, meat rendering operation)? If No, go to 2.04.02.	0	Adjacent refers to all parcels of land next to the growing operation, or within a distance where the crop in question may be affected. Intensive livestock production involves large numbers of animals on limited land. Examples of intensive livestock production are confined animal feeding operations (CAFO), cattle feed lots, dairy operations, poultry houses, etc. Consideration should be made for the topography of the land for runoff, potential flooding issues, and prevailing winds for manure related dust issues.
2.04.01a 	Where there is intensive livestock production on the adjacent land, have appropriate measures been taken to mitigate this possible contamination source onto the growing area (e.g., buffer areas, physical barriers, foundation, fences, ditches, etc.)?	15 	Animal or potential contaminant movement should be restricted with acceptable buffer zones, proper fencing and/or other physical barriers. A buffer zone of approximately 400 ft. (122 m) from the edge of the growing area which may increase or decrease depending on the risk variables i.e., topography (% slope uphill from the crop or downhill from the crop), soil type (sandy, loam, clay) is needed. Rain induced runoff of animal waste should be diverted by trenching or similar land preparation. Leaking animal waste should be diverted by trenching or similar land preparation. Farms and indoor agriculture operations following the CA or AZ LGMA should reference current metrics e.g., a buffer zone of approximately 1,200 ft. (365m) for CAFO's with >1,000 head or 1 mile (1609m) for 80,000 head CAFO, which may increase or decrease after assessing the risks, determining, and deploying mitigation measures.



2.04.02	Is there evidence of domestic animals and/or wild animals (includes homes with hobby farms, and non-commercial livestock) in proximity to the growing operation? If No, go to 2.04.03.	0	This includes all non-intensive livestock production. Other examples include chicken coops, dogs, horses, homes with hobby farms, wild pigs etc. Auditor must consider the maturity stage and type of crop involved. For example, pig activity around a ground level berry crop is different from a high level tree crop.
2.04.02a 	Where there are domestic and/or wild animals (includes homes with hobby farms, and non-commercial livestock) have physical measures been put in place to restrain the animals and their waste from entering the growing area (e.g., vegetative strips, windbreaks, physical barriers, berms, fences, diversion ditches)?	15 	Mitigating measures should include a buffer area of approximately 30 ft. (9.1m) from the edge of the crop which may increase or decrease depending on the risk variables e.g. topography (% slope uphill from the crop or downhill from the crop), soil type (sandy, loam, clay) . Other measures may be used such as vegetative strips, wind breaks, physical barriers, berms, fences, diversion ditches to prevent or control runoff, mitigate particulates, etc.
2.04.03	Are untreated animal manure piles, compost, biosolids, or non-synthetic amendment stored and/or applied on adjacent land? If No, go to 2.04.04.	0	Adjacent refers to all parcels of land next to the growing operation or within a distance where the crop in question may be affected by untreated animal manure piles, compost, biosolids, or nonsynthetic amendment stored and/or applied on adjacent land.
2.04.03a 	Where present, have physical measures been taken to secure untreated animal manure piles, compost, biosolids, or non-synthetic amendment stored and/or applied on adjacent land?	15 	Mitigating measures should include a buffer area of approximately 400 ft. (122 m) from the edge of the crop which may increase or decrease depending on the risk variables e.g. topography (uphill from the crop or downhill from the crop). Other measures may include tarping systems, physical barriers, fences, ditches, etc. Implementing systems to redirect run off that may contain untreated manure, compost, or biosolids.
2.04.03b 	If biosolids are stored and/or applied on adjacent land, has the adjacent landowner supplied paperwork confirming the biosolids meet prevailing guidelines, governmental, or local standards?	10 	The adjacent landowner of where the biosolids are applied or stored should supply paperwork detailing sufficient information regarding the class of biosolids (e.g., Class AA, A, B): Information should be available that would make it possible to trace back to the source if needed. Information should be available to prove the materials meet prevailing guidelines, governmental, or local standards. Biosolid applications should be timed to avoid conflicts with growing schedules in adjacent fields.
2.04.04	Is the growing area situated in a higher risk location where contamination could occur from nearby operations or functions (e.g., leach fields, runoff or potential flooding from sewers, toilet systems, industrial facilities, labor camps, etc.)? If No, go to 2.04.05.	0	"Higher risk" refers to any nearby activities or operations that could pose a threat to the growing area or facility(s). These might include chemical, microbiological, or physical contamination or pollution. Examples include, but are not limited to, runoff or potential flooding from septic systems, sewers, toilet systems, industrial facilities, labor camps (issues of trash).
2.04.04a 	Where the growing area is situated in a higher risk location, have appropriate measures been taken to mitigate risks related to nearby operations?	15 	Mitigating measures should include appropriate buffer area around the crop. For example with a properly designed leach field a buffer zone of approximately 30 ft. (9 m). Very high risk issues should consider approximately 400ft (122 m) or higher buffer zones. Buffer zone distances should be determined by considering the risk variables (e.g. topography, type of crop). Other mitigating measures may include physical barriers, fences, ditches, etc.
2.04.05	Are there any other potential risks in the adjacent land that could potentially lead to contamination of the growing area?	0	If there are any other potential sources of contamination to the growing area, this question is designed to allow the auditor to underline potential risks that are not covered by other more specific questions within the audit.
2.04.05a 	Have appropriate measures been taken to mitigate risks related to nearby operations?	15 	If there are any other potential sources of contamination to the growing area, there should be mitigating measures to prevent contamination.
2.04.06	Is there evidence of human fecal matter in the adjacent land to the audited area? If No, go to 2.05.01.	0	If the fecal matter found combines with conditions that can increase the potential of contamination to the growing area, the crop or the field equipment, this represents a high risk situation that has to be addressed. Evidence of human fecal matter represents potential of contamination to the growing area, the crop and field equipment. If No, go to 2.05.01.

2.04.06a 	Where there is evidence of human fecal matter in the adjacent land, are there adequate controls in place to mitigate risk (e.g., access controls (barriers), distance from the growing area and equipment, crop type and maturity, land condition, etc.)?	15 	If human fecal matter is found in the adjacent land, there should be adequate controls in place, and records of any corrective or preventive actions taken.
INSPECTION			
Question No.	Question	Total Points	Expectation
2.05.01 	Is there documented evidence of the internal audits performed, detailing findings and corrective actions?	15 	There should be records of the internal audits performed, meeting the frequency defined in the internal audit program. The records should include the date of the audit, name of the internal auditor, scope of the audit, justification for answers (not just checked ✓ or all Y/N), detailing any deficiencies found and the corrective actions taken. An audit checklist (ideally PrimusGFS) should be used that covers all areas of the PrimusGFS audit, including worker hygiene, harvest practices, on-site storage, etc. No down score if another audit checklist is used, as long as all areas are covered. See 1.04.01 for specific details .
2.05.02	Are there chemical inventory logs for chemicals, including pesticides and fertilizers?	3	Chemicals within the scope of this question include pesticides, fertilizers, cleaners and sanitizers i.e. sanitation chemicals and food contact chemicals, such as chlorine, etc. Primary information in the product inventory includes: the product or chemical names, container volumes, number on hand , and location of containers. Inventory by storage area/type of chemical is optimal. The inventory should take into account the arrival of new stocks and any discrepancies should be explained. Minimum frequency for inventory checks should be monthly during production season and a copy should be maintained separate from the chemical storage location(s) and available for auditor review . The frequency of the inventory checks may decrease in short season or off-season operations; auditor discretion applies.
2.05.03 	Are all chemicals (pesticides, sanitizers, detergents, lubricants, etc.) stored securely, safely and are they labeled correctly?	15 	Chemicals (i.e., pesticides, sanitizers, detergents, lubricants, etc.) are required to be stored in a well vented, designated (with a sign), dedicated, secure (locked) area away from food and packaging materials and separated from growing area and water sources. Spill controls should be in place for opened in use containers. All chemical containers should be off the floor, have legible labels of contents; this includes chemicals that have been decanted from master containers into smaller containers. Empty pesticide containers should be kept in a secured storage area until they can be recycled or disposed of properly. Where pesticide storage is not located on-site, auditor discretion applies on question applicability.
2.05.04 	Are the crop, ingredients (including water), food contact packaging and food contact surfaces within accepted tolerances for spoilage and free from adulteration? ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.	15 	The crop, ingredients (including water), food contact packaging and food contact surfaces should be free from spoilage, adulteration and/or gross contamination (21 CFR 110.3g). If legislation exists, then the contamination should be viewed against this legislation (e.g., USDA Grading Standards often include decay tolerances). Spoilage and adulteration would include any physical, chemical or biological contamination including blood and bodily fluids. Measures should be taken to prevent any known or reasonably foreseeable hazard (e.g., Clostridium botulinum in mushrooms). This question is designed to allow an auditor to halt an audit when finding gross contamination issues. ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.





TRAINING			
Question No.	Question	Total Points	Expectation
2.06.01 	Is there a food safety hygiene training program covering new and existing workers and are there records of these training events?	15 	There should be a formal training program to inform workers of the current policies and requirements of the company regarding hygiene. Training should be in the language understood by the workers, and training type and intensity should reflect the risks associated with the products/processes. Frequency should be at the start of the season before starting work and then some topics covered at least quarterly, but ideally monthly. These trainings should cover food safety and hygiene policies and basic food safety and hygiene topics , the importance of detecting food safety and/or hygiene issues with co-workers and visitors, all food safety or hygiene issues in which they are responsible, and correcting and reporting problems . Training logs should have a clearly defined topic(s) covered, trainer(s) and material(s) used/given. Topics include, but not limited to, hand washing, protective clothing (where applicable), recognizing and reporting injury and illness, blood and bodily fluids, jewelry, dropped product, animal intrusion, food defense. There should be records of workers who have attended each session.
2.06.02 	Are there written and communicated procedures in place that require food handlers to report any cuts or grazes and/or if they are suffering from any illnesses that might be a contamination risk to the products being produced, and return to work requirements? (In countries with health privacy/confidentiality laws, e.g. USA, auditors can check procedure/policy but not actual records).	10 	There should be documented procedures that are communicated to food handlers (e.g., worker signature on a training log) to food handlers, requiring them to report any cuts, grazes and/or any illnesses that might be a food safety cross contamination risk. Procedures to note return to work requirements for affected workers. Procedures should cover recording requirements, but auditors should not request to review records where countries have laws covering privacy/confidentiality of health records.
2.06.03	Are there worker food safety non-conformance records and associated corrective actions (including retraining records)?	3	There should be records covering when workers are found not following food safety requirements. These records should also show corrective actions and evidence that retraining has occurred (where relevant).
FIELD WORKER HYGIENE (APPLIES TO ON-THE-FARM WORKERS, NOT THE HARVESTING WORKERS)			
Question No.	Question	Total Points	Expectation
2.07.01 	Are toilet facilities adequate in number and location? A ZERO POINT (NON-COMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.	15 	Toilet facilities should be available to all workers and visitors, while work is actively occurring. At least one toilet per 20 workers should be provided, or if more stringent, as per prevailing national/local guidelines. Toilet facility placement should be within 1/4 mile or 5 minutes walking distance of where workers are located, or if more stringent, as per prevailing national/local guidelines. A 5 minute drive is not acceptable, while farm work is actively occurring with groups of three or more workers. Where there are two or less workers present (e.g., spray activities, irrigation check) and workers have transportation that is immediately available to toilets within a 5 minute drive, it is acceptable to score as total compliance. Automatic failure if there are insufficient or inadequate toilet facilities. A ZERO POINT (NON-COMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.
2.07.01a 	Are toilet facilities in a suitable location to prevent contamination to product, packaging, equipment, and growing areas?	15 	Placement of toilet facilities should be in a suitable location to prevent contamination to product, packaging, equipment, water sources, and growing areas. Consideration should be given when portable units are used that they are not parked (if on trailers) too close to the edge of the crop and have a minimum 15 ft (4.5 m) buffer distance in the event of a spill or leak. If pit toilets are used, consider proximity to crop and water sources.













2.07.01b 	Are toilet facilities designed and maintained to prevent contamination (e.g., free from leaks and cracks)?	5 	Toilet facilities should be free from cracks and leaks and any waste holding tanks from toilets must be designed and maintained properly to prevent contamination. Waste holding tanks should be free of leaks, cracks and constructed of durable materials (e.g. plastic) that will not degrade or decompose (no wood). Each toilet should be ventilated to outside air. Pit toilets cannot be considered to be properly designed to prevent contamination.
2.07.01c	Are toilet facilities constructed of materials that are easy to clean?	3	Toilet facilities should be constructed of non-porous materials that are easy to clean and sanitize. The floors, walls, ceiling, partitions and doors should be made of a finish that can be easily cleaned.
2.07.01d	Are the toilet facility materials constructed of a light color allowing easy evaluation of cleaning performance?	3	Toilet facilities should be constructed of materials light in color, allowing easy evaluation of cleaning performance.
2.07.01e	Are toilet facilities supplied with toilet paper and is the toilet paper maintained properly (e.g., toilet paper rolls are not stored on the floor or in the urinals)?	5	Toilet paper should be provided in a suitable holder in each toilet facility. Toilet paper should be maintained properly (e.g., toilet paper rolls are not stored on the floor or in the urinals).
2.07.01f	Where used, is there a documented procedure for emptying the waste holding tanks in a hygienic manner and also in a way that prevents product, packaging, equipment, water systems and growing area contamination?	5	If toilets have waste holding tanks, they should be emptied, pumped, and cleaned in a manner to avoid contamination to product, packaging, equipment, water systems and growing area(s). Equipment used in emptying/pumping must be in good working order. A documented procedure should exist and should include a response plan for major leaks or spills, including indicating where pumped waste is disposed of and requiring communication to the designated person(s) responsible for the food safety program regarding the actions taken when a major leak or spill occurred.
2.07.01g 	Are the toilet facilities and hand washing stations clean and are there records showing cleaning , servicing and stocking is occurring regularly?	10 	Toilet facilities and hand washing stations should be cleaned and sanitized on a regular basis. Servicing records (either contracted or in-house) should be available for review showing toilet cleaning, servicing and stocking is occurring regularly. Toilet paper should be available at each toilet location and maintained in a hygienic manner (held on rolls, not placed in urinals or on the floor). Soiled tissue should be flushed down the toilet/ placed in the holding tank (not placed in trash cans and/or on the floor).
2.07.02	Is hand washing signage posted appropriately?	5	Toilet facilities should have hand washing signs as a reminder to wash hands before and after eating, returning to work and after using the toilet. Signs need to be posted and in the language of the workers (picture signs are allowed). The signs should be permanent and placed in key areas where workers can easily see them.
2.07.03 	Are hand washing stations adequate in number and appropriately located for worker access and monitoring usage? A ZERO POINT (NON-COMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.	15 	An adequate number of hand washing stations, in working order, should be provided to ensure efficient worker flow (1 per 20 people on site), and be available to all workers and visitors while work is actively occurring. Hands free is an optimum system. Hand washing stations should be located within close proximity of toilet facilities and 1/4 mile or 5 minutes walking distance of where workers are located. A ZERO POINT (NON-COMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.
2.07.03a	Are the hand wash stations designed and maintained properly (e.g., ability to capture or control rinse water to prevent contamination onto product, packaging, and growing area, free of clogged drains, etc.)?	5	Hand wash stations should be free of clogged drains, designed and maintained properly to capture or control rinse water that could cause contamination onto product, packaging, equipment and growing area(s).
2.07.03b	Are hand wash stations clearly visible (e.g., situated outside the toilet facility) and easily accessible to workers?	5	Hand wash stations should be clearly visible (i.e. situated outside the toilet facility) in order to verify hand washing activities, and easily accessible to workers.
2.07.03c 	Are hand wash stations adequately stocked with unscented soap and paper towels?	5 	All hand washing facilities should be properly stocked with liquid non-perfumed, neutral or antiseptic soap. Single use paper towels should be used and units properly located. There should be an adequate stock of soap and paper towels.













2.07.04 (new question) 	Are total coliforms (TC) and generic <i>E. coli</i> tests conducted on the water used for hand washing at the required and/or expected frequency?	15 	Total coliforms (TC) and generic <i>E. coli</i> testing should occur prior to use and at least annually. Water samples should be taken from as close to the point of use as is practical e.g. hand wash spigot/faucet. If there are multiple hand wash units, then samples should be taken from a different location each test (randomize or rotate locations). If there are multiple sources for hand wash water, testing should also account for each source used.
2.07.04a (new question)	Do written procedures (SOPs) exist covering proper sampling protocols, which include where samples should be taken and how samples should be identified?	10	There should be a documented procedure in place detailing how water samples are to be taken, including stating how samples should be identified i.e. clearly naming the location that the sample was taken, identifying the hand wash station, the water source and the date.
2.07.04b (new question)	Do written procedures (SOPs) exist covering corrective measures for unsuitable or abnormal water testing results?	10	Written procedures (SOPs) should exist covering corrective measures, not only for the discovery of unsuitable or abnormal water testing results, but also as a preparation on how to handle such findings.
2.07.04c (new question) 	If unsuitable or abnormal results have been detected, have documented corrective measures been performed?	15 	For total coliforms (TC) and generic <i>E. coli</i> , there should be negative or < detection limit (MPN or CFU/100mL). Where thresholds have been exceeded, there should be recorded corrective actions, including investigations and water retests.
2.07.05 	Are workers washing and sanitizing their hands before starting work each day, after using the restroom, after breaks, before putting on gloves and whenever hands may be contaminated?	15 	Worker conformance to hand washing and sanitizing procedures should be assessed as washing hands is the first step in avoiding food contamination. Workers should be observed washing their hands prior to beginning work, after breaks, after using the toilets, before putting on gloves, and whenever hands may have become a source of contamination (e.g., after eating, after using a handkerchief or tissue, smoking, drinking, etc.).
2.07.06 	Are workers who are working directly or indirectly with food, free from signs of boils, sores, open wounds and are not exhibiting signs of foodborne illness?	10 	Workers who have exposed boils, sores, exposed infected wounds, foodborne illness or any other source of abnormal microbial contamination should not be allowed to work in contact with the product, packaging or food contact surfaces.
2.07.07	Is jewelry confined to a plain wedding band and watches, studs, false eyelashes, etc., are not worn?	5	Workers are not observed wearing jewelry (including earrings, ear gages, necklaces, bracelets, rings with stones, rings or studs in nose, lip and eyebrow, watches) in the growing area. Plain wedding bands are the only exception. Other examples of foreign items maybe a source of foreign material contamination include studs, false finger nails and finger nail polish, false eye lashes, eye lash extensions and badges.
2.07.08	Are worker personal items being stored appropriately (i.e. not in the growing area(s) or material storage area(s))?	5	Workers should have a designated area for storing personal items such as coats, shoes, purses, medication, phones, etc. Areas set aside for workers' personal items should be far enough away from growing area(s) and material storage area(s) to prevent contamination and avoid food defense risks.
2.07.09 	Is smoking, eating, chewing and drinking confined to designated areas, and spitting is prohibited in all areas?	5 	Smoking, chewing tobacco, chewing gum, drinking and eating is permitted in designated areas that are away from growing and storage areas. Spitting should be prohibited in all areas. Smoking should not be permitted in eating and drinking areas.











2.07.10	Is fresh potable drinking water readily accessible to workers?	10	Fresh potable water meeting the quality standards for drinking water should be provided and placed in locations readily accessible to all workers on-site to prevent dehydration. The term "potable" meaning that the water is of drinking water quality (e.g., the EPA Drinking Water Standard or equivalent). Auditors should verbally verify the source of the water at the time of the audit. If water containers are used, they should be maintained in a clean condition, free from residues and contamination to ensure workers are not adversely affected by contaminated water from unclean containers. If there is evidence (i.e. visual observation or documentation) the water is coming from a questionable source, the auditor should review water quality test results.
2.07.10a	Are single use cups provided (unless a drinking fountain is used) and made available near the drinking water?	5	Single use cups should be provided so that cross contamination issues are avoided from person to person. Examples include single-use cups , drinking fountains, etc. Common drinking cups and other common utensils are prohibited.
2.07.11	Are first aid kits adequately stocked and readily available?	5	First aid kit(s) should be adequately supplied to reflect the kinds of injuries that occur (including any chemicals stored on-site) and should be stored in an area where they are readily available for emergency access. Date-coded materials should be within dates of expiration. Gloves should be worn over all band aids on hands.
2.07.12	Are there adequate trash cans placed in suitable locations?	5	There should be adequate measures for trash disposal so that the growing and storage areas are not contaminated. Containers (e.g. dumpsters, cans) should be available and placed in suitable locations for the disposal of waste and trash e.g. near hand wash stations.
2.07.13 	Are any potential foreign material issues (e.g., metal, glass, plastic) controlled?	5 	There should be no foreign material issues that are or could be potential risks to the product. Examples include, but are not limited to, glass bottles, unprotected lights on equipment, staples on wooden crates, hair pins, using "snappable" blades instead of one piece blades, broken and brittle plastic issues on re-useable totes.















AGRONOMIC INPUTS





Question No.	Question	Total Points	Expectation
2.08.01	Is human sewage sludge (biosolids) used as an input? Information gathering question.	0	Human sewage sludge (biosolids), which are by-products of waste water treatment, should not be used in the growing cycle for indoor growing operations, and also where specifically prohibited under best management practices (e.g., LGMA, T-GAPs). The use of untreated biosolids is prohibited. Information gathering question.
2.08.01a 	Is fertilizer being used where the country regulations/ guidelines ban the use of such materials (e.g., Californian Leafy Green Commodity Specific Guidelines)? ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.	15 	Some commodity specific guidelines have rules regarding the use of specific fertilizer types, e.g. Californian Leafy Green Commodity Specific Guidelines. ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.
2.08.01b 	Are there fertilizer use records available for each growing area, including application records?	15 	Records should be legible and at least detail date of application, type of fertilizer, amount, method of application (drip, bulk, etc.), where it was applied and operator name. There should be sufficient identification information in the records that would make it possible to trace an application back to the site if needed. There should be an interval between application and harvest of at least 45 days for non-synthetic crop treatments and compost, and an interval of at least 120 days (but ideally 9 months) for untreated animal manure.





2.08.01c 	Are there Certificate(s) of Analysis (CoA), specifications, product label or other documents available for review provided by the supplier stating the components of the material?	10 	Certificate(s) of Analysis (CoA), letters of guarantee or other formal documentation from the fertilizer manufacturer(s) or supplier(s) should be current and state any inert or active ingredient substances used as “fillers” (e.g., clay pellets, granular limestone). Concerns are for heavy metals that may affect human health (e.g. Arsenic (As), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Selenium (Se), Zinc (Zn)).
2.08.01d 	Are there Certificate(s) of Analysis (CoA) from the supplier(s) that cover pathogen testing (plus any other legally/best practice required testing) and does the grower have relevant letters of guarantee regarding supplier SOPs and logs?	15 	Certificates of analysis should be available for each lot (containing animal materials) used. As a minimum, microbial testing should include <i>Salmonella spp.</i> , <i>Listeria monocytogenes</i> and <i>E. coli</i> O157:H7 for non-synthetic crop treatments (e.g., compost teas, fish emulsions, fish meal, blood meal, “bio fertilizers”) and for animal-based compost, using approved sampling and testing methods (e.g., AOAC and an accredited laboratory). Where legally allowed, a reduced sampling rate is possible if the material is produced by the auditee (e.g. mushroom growing operations with in-house compost production) and has been through a physical/chemical/biological process to inactivate human pathogens and the auditee has validation study documentation that shows that the material is safe and proper process control records (e.g., time/temperature records and calibration records, such as, temperature probe) are maintained and available during the audit. Validation studies must be applicable to the situation at hand and care should be taken not to over extrapolate. All local and national legislation should also be followed. The grower should have proof that compost suppliers have cross contamination SOPs and temperature/turning logs.
2.08.01e 	Are there Certificate(s) of Analysis (CoA), letters of guarantee or other documents from the supplier(s) that cover heavy metal testing?	10 	Certificate(s) of Analysis (CoA), letters of guarantee or other documents should be available from the crop treatment supplier(s) that cover heavy metal testing. Concerns are for heavy metals that may affect human health (e.g. Arsenic (As), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Selenium (Se), Zinc (Zn)).
2.08.02	Is compost produced from animal derived materials used as an input? Information gathering question.	0	This question is specifically targeting compost produced from raw animal manures, as opposed to green waste. Information gathering question.
2.08.02a 	Is fertilizer being used where the country regulations/ guidelines ban the use of such materials (e.g., Californian Leafy Green Commodity Specific Guidelines)? ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.	15 	Some commodity specific guidelines have rules regarding the use of specific fertilizer types, e.g. Californian Leafy Green Commodity Specific Guidelines. ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.
2.08.02b 	Are there fertilizer use records available for each growing area, including application records?	15 	Records should be legible and at least detail date of application, type of fertilizer, amount, method of application (drip, bulk, etc.), where it was applied and operator name. There should be sufficient identification information in the records that would make it possible to trace an application back to the site if needed. There should be an interval between application and harvest of at least 45 days for non-synthetic crop treatments and compost, and an interval of at least 120 days (but ideally 9 months) for untreated animal manure. The applications should be incorporated into the soil prior to planting or bud burst for tree crops.
2.08.02c 	Are there Certificate(s) of Analysis (CoA), specifications, product label or other documents available for review provided by the supplier stating the components of the material?	10 	Certificate(s) of Analysis (CoA), letters of guarantee or other formal documentation from the fertilizer manufacturer(s) or supplier(s) should be current and state any inert or active ingredient substances used as “fillers” (e.g., clay pellets, granular limestone). Concerns are for heavy metals that may affect human health (e.g. Arsenic (As), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Selenium (Se), Zinc (Zn)).







2.08.02d 	Are there Certificate(s) of Analysis (CoA) from the supplier(s) that cover pathogen testing (plus any other legally/best practice required testing) and does the grower have relevant letters of guarantee regarding supplier SOPs and logs?	15 	Certificates of analysis should be available for each lot (containing animal materials) used. As a minimum, microbial testing should include <i>Salmonella spp.</i> , <i>Listeria monocytogenes</i> and <i>E. coli</i> O157:H7 for non-synthetic crop treatments (e.g., compost teas, fish emulsions, fish meal, blood meal, “bio fertilizers”) and for animal-based compost, using approved sampling and testing methods (e.g., AOAC and an accredited laboratory). Where legally allowed, a reduced sampling rate is possible if the material is produced by the auditee (e.g. mushroom growing operations with in-house compost production) and has been through a physical/chemical/biological process to inactivate human pathogens and the auditee has validation study documentation that shows that the material is safe and proper process control records (e.g., time/temperature records and calibration records, such as, temperature probe) are maintained and available during the audit. Validation studies must be applicable to the situation at hand and care should be taken not to over extrapolate. All local and national legislation should also be followed. The grower should have proof that compost suppliers have cross contamination SOPs and temperature/turning logs.
2.08.02e 	Are there Certificate(s) of Analysis (CoA), letters of guarantee or other documents from the supplier(s) that cover heavy metal testing?	10 	Certificate(s) of Analysis (CoA), letters of guarantee or other documents should be available from the crop treatment supplier(s) that cover heavy metal testing. Concerns are for heavy metals that may affect human health (e.g. Arsenic (As), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Selenium (Se), Zinc (Zn)).
2.08.03	Is untreated animal manure used as an input (e.g., raw manure &/or uncomposted, incompletely composted animal manure, green waste, non-thermally treated animal manure)? Information gathering question.	0	Untreated animal manure refers to manure that is raw and has not gone through a treatment process. Examples include raw manure and/or uncomposted, incompletely composted animal manure and/or green waste or non-thermally treated animal manure. Untreated animal manure should not be used in indoor growing operations or where prohibited under best management practices. Information gathering question.
2.08.03a 	Is fertilizer being used where the country regulations/ guidelines ban the use of such materials (e.g., Californian Leafy Green Commodity Specific Guidelines)? ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.	15 	Some commodity specific guidelines have rules regarding the use of specific fertilizer types, e.g. Californian Leafy Green Commodity Specific Guidelines. ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.
2.08.03b 	Are there fertilizer use records available for each growing area, including application records?	15 	Records should be legible and at least detail date of application, type of fertilizer, amount, method of application (drip, bulk, etc.), where it was applied and operator name. There should be sufficient identification information in the records that would make it possible to trace an application back to the site if needed. There should be an interval between application and harvest of at least 45 days for non-synthetic crop treatments and compost, and an interval of at least 120 days (but ideally 9 months) for untreated animal manure. The applications should be incorporated into the soil prior to planting or bud burst for tree crops.
2.08.03c 	Are there Certificate(s) of Analysis (CoA), specifications, product label or other documents available for review provided by the supplier stating the components of the material?	10 	Certificate(s) of Analysis (CoA), letters of guarantee or other formal documentation from the fertilizer manufacturer(s) or supplier(s) should be current and state any inert or active ingredient substances used as “fillers” (e.g., clay pellets, granular limestone). Concerns are for heavy metals that may affect human health (e.g. Arsenic (As), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Selenium (Se), Zinc (Zn)).
2.08.03d 	Are there Certificate(s) of Analysis (CoA), letters of guarantee or other documents from the supplier(s) that cover heavy metal testing?	10 	Certificate(s) of Analysis (CoA), letters of guarantee or other documents should be available from the crop treatment supplier(s) that cover heavy metal testing. Concerns are for heavy metals that may affect human health (e.g. Arsenic (As), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Selenium (Se), Zinc (Zn)).





2.08.04	Are other non-synthetic crop treatments used as an input (e.g., compost teas, fish emulsions, fish meal, blood meal, bio-fertilizers, etc.)? Information gathering question.	0	Examples include but are not limited to compost teas (also known as agricultural teas), fish emulsions, fish meal, blood meal, inoculants (beneficial microbes), and "bio fertilizers" that are produced from animal materials. Informational Gathering Question.
2.08.04a 	Is fertilizer being used where the country regulations/ guidelines ban the use of such materials (e.g., Californian Leafy Green Commodity Specific Guidelines)? ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.	15 	Some commodity specific guidelines have rules regarding the use of specific fertilizer types, e.g. Californian Leafy Green Commodity Specific Guidelines. ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.
2.08.04b 	Are there fertilizer use records available for each growing area, including application records?	15 	Records should be legible and at least detail date of application, type of fertilizer, amount, method of application (drip, bulk, etc.), where it was applied and operator name. There should be sufficient identification information in the records that would make it possible to trace an application back to the site if needed. There should be an interval between application and harvest of at least 45 days for non-synthetic crop treatments and compost, and an interval of at least 120 days (but ideally 9 months) for untreated animal manure. The applications should be incorporated into the soil prior to planting or bud burst for tree crops.
2.08.04c 	Are there Certificate(s) of Analysis (CoA), specifications, product label or other documents available for review provided by the supplier stating the components of the material?	10 	Certificate(s) of Analysis (CoA), letters of guarantee or other formal documentation from the fertilizer manufacturer(s) or supplier(s) should be current and state any inert or active ingredient substances used as "fillers" (e.g., clay pellets, granular limestone). Concerns are for heavy metals that may affect human health (e.g. Arsenic (As), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Selenium (Se), Zinc (Zn)).
2.08.04d 	Are there Certificate(s) of Analysis (CoA) from the supplier(s) that cover pathogen testing (plus any other legally/best practice required testing) and does the grower have relevant letters of guarantee regarding supplier SOPs and logs?	15 	Certificates of analysis should be available for each lot (containing animal materials) used. As a minimum, microbial testing should include <i>Salmonella spp.</i> , <i>Listeria monocytogenes</i> and <i>E. coli</i> O157:H7 for non-synthetic crop treatments (e.g., compost teas, fish emulsions, fish meal, blood meal, "bio fertilizers") and for animal-based compost, using approved sampling and testing methods (e.g., AOAC and an accredited laboratory). Where legally allowed, a reduced sampling rate is possible if the material is produced by the auditee (e.g. mushroom growing operations with in-house compost production) and has been through a physical/chemical/biological process to inactivate human pathogens and the auditee has validation study documentation that shows that the material is safe and proper process control records (e.g., time/temperature records and calibration records, such as, temperature probe) are maintained and available during the audit. Validation studies must be applicable to the situation at hand and care should be taken not to over extrapolate. All local and national legislation should also be followed. The grower should have proof that compost suppliers have cross contamination SOPs and temperature/turning logs.
2.08.04e 	Are there Certificate(s) of Analysis (CoA), letters of guarantee or other documents from the supplier(s) that cover heavy metal testing?	10 	Certificate(s) of Analysis (CoA), letters of guarantee or other documents should be available from the crop treatment supplier(s) that cover heavy metal testing. Concerns are for heavy metals that may affect human health (e.g. Arsenic (As), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Selenium (Se), Zinc (Zn)).
2.08.05	Are soil or substrate amendments used as an input (e.g., plant by-products, humates, seaweed, inoculants, and conditioner, etc.)? Information gathering question.	0	This refers to soil or substrate amendments (except inorganic nutrients/fertilizers) used that do not contain animal products and/or animal manures. Examples include but are not limited to plant by-products (e.g. coir), humates (e.g. peat), seaweed, and conditioners (e.g. vermiculite, etc.. Information gathering question.

2.08.05a 	Is fertilizer being used where the country regulations/ guidelines ban the use of such materials (e.g., Californian Leafy Green Commodity Specific Guidelines)? ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.	15 	Some commodity specific guidelines have rules regarding the use of specific fertilizer types, e.g. Californian Leafy Green Commodity Specific Guidelines. ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.
2.08.05b 	Are there fertilizer use records available for each growing area, including application records?	15 	Records should be legible and at least detail date of application, type of fertilizer, amount, method of application (drip, bulk, etc.), where it was applied and operator name. There should be sufficient identification information in the records that would make it possible to trace an application back to the site if needed. The applications should be incorporated into the soil prior to planting or bud burst for tree crops.
2.08.05c 	Are there Certificate(s) of Analysis (CoA), specifications, product label or other documents available for review provided by the supplier stating the components of the material?	10 	Certificate(s) of Analysis (CoA), letters of guarantee or other formal documentation from the fertilizer manufacturer(s) or supplier(s) should be current and state any inert or active ingredient substances used as “fillers” (e.g., clay pellets, granular limestone). Concerns are for heavy metals that may affect human health (e.g. Arsenic (As), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Selenium (Se), Zinc (Zn).
2.08.05d 	Are there Certificate(s) of Analysis (CoA) and/or letters of guarantee stating that the materials used are free from animal products and/or animal manures?	15 	There should be Certificate(s) of Analysis (CoA) and/or letters of guarantee from the fertilizer supplier, stating that the materials they are supplying are free from animal products and/or animal manures. A statement of ingredients or letter from suppliers attesting this fact is acceptable. Auditor should match the names of the materials being used with the CoA's and/letters of guarantee.
2.08.06	Are inorganic fertilizers used as an input (e.g., ammonium nitrate, ammonium sulfate, chemically synthesized urea, etc.)? Information gathering question.	0	Examples of manufactured inorganic fertilizers include ammonium nitrate, ammonium sulfate, chemically synthesized urea, etc. Informational Gathering Question.
2.08.06a 	Is fertilizer being used where the country regulations/ guidelines ban the use of such materials (e.g., Californian Leafy Green Commodity Specific Guidelines)? ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.	15 	Some commodity specific guidelines have rules regarding the use of specific fertilizer types, e.g. Californian Leafy Green Commodity Specific Guidelines. ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.
2.08.06b 	Are there fertilizer use records available for each growing area, including application records?	15 	Records should be legible and at least detail date of application, type of fertilizer, amount, method of application (drip, bulk, etc.), where it was applied and operator name. There should be sufficient identification information in the records that would make it possible to trace an application back to the site if needed.
2.08.06c 	Are there Certificate(s) of Analysis (CoA), specifications, product label or other documents available for review provided by the supplier stating the components of the material?	10 	Certificate(s) of Analysis (CoA), letters of guarantee or other formal documentation from the fertilizer manufacturer's or supplier(s) should be current and state any inert or active ingredient substances used as “fillers” (e.g., clay pellets, granular limestone). Concerns are for heavy metals that may affect human health (e.g. Arsenic (As), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Selenium (Se), Zinc (Zn).





IRRIGATION / WATER USE			
Question No.	Question	Total Points	Expectation
2.09.01	Is municipal/district water used in the growing operation?	0	informational gathering question.
2.09.01	What is this water source used for (e.g., irrigation, crop protection sprays, fertigation, frost/freeze protection, cooling, dust abatement, etc.)?	0	Informational gathering question.
2.09.01	What type of irrigation methods are used (e.g., micro-irrigation, drip, overhead, flood irrigation, furrow irrigation, seepage irrigation, hydroponic (specify type))?	0	Informational gathering question.
2.09.01	Does the water come in contact with the edible portion of the crop?	0	Informational gathering question.
2.09.01a 	Are generic <i>E. coli</i> tests conducted on the water (taken from the closest practical point of use) at the required and/or expected frequency? A ZERO POINT (NONCOMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.	15 	Water samples should be taken from as close to the point of use as is practical. At least one sample per distribution system is required. If there are multiple sampling points in a distribution system, then samples are taken from a different location each test (randomize or rotate locations). For farm and indoor agriculture operations, one sample per water source is collected and tested prior to use if >60 days since the last test of the water source. Additional samples are taken at least monthly during use of the water source. A less frequent testing is acceptable if supported by a valid documented risk assessment although there should be at least one water test per season. Where there are more stringent federal, national or local requirements, these requirements should be followed. A ZERO POINT (NONCOMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.
2.09.01b	Do written procedures (SOPs) exist covering proper sampling protocols which include where samples should be taken and how samples should be identified?	10	There should be documented procedures in place detailing how water samples are taken in the field, including stating how samples should be identified i.e. clearly naming the location that the sample was taken, the water source and the date (this is important in order to be able to calculate geometric means). Samples should be taken at a point as close to the point of use as possible where water contacts the crop, so as to test both the water source and the water distribution system.
2.09.01c	Do written procedures (SOPs) exist covering corrective measures for unsuitable or abnormal water testing results?	10	Written procedures (SOPs) should exist covering corrective measures not only for the discovery of unsuitable or abnormal water test results but also as a preparation on how to handle such findings.
2.09.01d 	If unsuitable or abnormal results have been detected, have documented corrective measures been performed?	15 	For generic <i>E. coli</i> (unless more stringent guidelines/laws in existence) <126MPN (or CFU)/100mL (rolling geometric mean n=5) and <235MPN (or CFU)/100mL for any single sample. Where thresholds have been exceeded, there should be recorded corrective actions that prevent or mitigate product contamination, including investigations, water retests, and if required, crop testing (<i>E. coli</i> O157:H7 and <i>Salmonella</i> - zero tolerance). Failure to take corrective actions, prevent or mitigate product contamination when there is evidence of high levels or an upward trend of <i>E. coli</i> may result in an automatic failure of the audit. For farms or indoor agriculture operations following the FDA's Produce Safety Rule, the operation needs to ensure they are meeting the requirements for samples to calculate the Geometric Mean (GM) and Statistical Threshold (STV).





2.09.01e 	Where anti-microbial water treatments (e.g. chlorination, U.V., ozone, etc.) are used, are there records of the monitoring frequencies, results and where necessary the corrective actions?	15 	Where any water treatment is performed at the source (e.g., well, canal, holding tank) this should be monitored. The strength of anti-microbial chemicals should be checked using an appropriate method for the anti-microbial in use (e.g., chemical reaction based test or as recommended by the disinfectant supplier). If using an anti-microbial treatment system (e.g. chlorination), there should be monitoring logs completed on at least a daily basis when the system is being used. Any well “shocking” should be recorded.
2.09.01f	Are records kept for periodic visual inspection of the water source and available for review?	5	“Records” may include calendar books with commentary regarding what was checked, the condition, unusual occurrences, (e.g. issues regarding well cap, well casing, seals, piping tanks, treatment equipment, cross connections, trash, animal presence, pooled water, etc.), and any action taken.
2.09.02	Is well water used in the growing operation?	0	Informational gathering question.
2.09.02	What is this water source used for (e.g., irrigation, crop protection sprays, fertigation, frost/freeze protection, cooling, dust abatement, etc.)?	0	Informational gathering question.
2.09.02	What type of irrigation methods are used (e.g., micro-irrigation, drip, overhead, flood irrigation, furrow irrigation, seepage irrigation, hydroponic (specify type))?	0	Informational gathering question.
2.09.02	Does the water come in contact with the edible portion of the crop?	0	Informational gathering question.
2.09.02a 	Are generic <i>E. coli</i> tests conducted on the water (taken from the closest practical point of use) at the required and/or expected frequency? A ZERO POINT (NONCOMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.	15 	Water samples should be taken from as close to the point of use as is practical. At least one sample per distribution system is required. If there are multiple sampling points in a distribution system, then samples are taken from a different location each test (randomize or rotate locations). For farm and indoor agriculture operations, one sample per water source is collected and tested prior to use if >60 days since the last test of the water source. Additional samples are taken at least monthly during use of the water source. A less frequent testing is acceptable if supported by a valid documented risk assessment although there should be at least one water test per season. Where there are more stringent federal, national or local requirements, these requirements should be followed. A ZERO POINT (NONCOMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.
2.09.02b	Do written procedures (SOPs) exist covering proper sampling protocols which include where samples should be taken and how samples should be identified?	10	There should be documented procedures in place detailing how water samples are taken in the field, including stating how samples should be identified i.e. clearly naming the location that the sample was taken, the water source and the date (this is important in order to be able to calculate geometric means). Samples should be taken at a point as close to the point of use as possible where water contacts the crop, so as to test both the water source and the water distribution system.
2.09.02c	Do written procedures (SOPs) exist covering corrective measures for unsuitable or abnormal water testing results?	10	Written procedures (SOPs) should exist covering corrective measures not only for the discovery of unsuitable or abnormal water test results but also as a preparation on how to handle such findings.









2.09.02d 	If unsuitable or abnormal results have been detected, have documented corrective measures been performed?	15 	For generic <i>E. coli</i> (unless more stringent guidelines/laws in existence) <126MPN (or CFU)/100mL (rolling geometric mean n=5) and <235MPN (or CFU)/100mL for any single sample. Where thresholds have been exceeded, there should be recorded corrective actions that prevent or mitigate product contamination, including investigations, water retests, and if required, crop testing (<i>E. coli</i> O157:H7 and <i>Salmonella</i> - zero tolerance). Failure to take corrective actions, prevent or mitigate product contamination when there is evidence of high levels or an upward trend of <i>E. coli</i> may result in an automatic failure of the audit. For farms or indoor agriculture operations following the FDA's Produce Safety Rule, the operation needs to ensure they are meeting the requirements for samples to calculate the Geometric Mean (GM) and Statistical Threshold (STV).
2.09.02e 	Where anti-microbial water treatments (e.g. chlorination, U.V., ozone, etc.) are used, are there records of the monitoring frequencies, results and where necessary the corrective actions?	15 	Where any water treatment is performed at the source (e.g., well, canal, holding tank) this should be monitored. The strength of anti-microbial chemicals should be checked using an appropriate method for the anti-microbial in use (e.g., chemical reaction based test or as recommended by the disinfectant supplier). If using an anti-microbial treatment system (e.g. chlorination), there should be monitoring logs completed on at least a daily basis when the system is being used. Any well "shocking" should be recorded.
2.09.02f	Are records kept for periodic visual inspection of the water source and available for review?	5	"Records" may include calendar books with commentary regarding what was checked, the condition, unusual occurrences, (e.g. issues regarding well cap, well casing, seals, piping tanks, treatment equipment, cross connections, trash, animal presence, pooled water, etc.), and any action taken.
2.09.03	Is non-flowing surface water used in the growing operation? (e.g., pond, reservoir, watershed)	0	Informational gathering question.
2.09.03	What is this water source used for (e.g., irrigation, crop protection sprays, fertigation, frost/freeze protection, cooling, dust abatement, etc.)?	0	Informational gathering question.
2.09.03	What type of irrigation methods are used (e.g., micro-irrigation, drip, overhead, flood irrigation, furrow irrigation, seepage irrigation, hydroponic (specify type))?	0	Informational gathering question.
2.09.03	Does the water come in contact with the edible portion of the crop?	0	Informational gathering question.
2.09.03a 	Are generic <i>E. coli</i> tests conducted on the water (taken from the closest practical point of use) at the required and/or expected frequency? A ZERO POINT (NONCOMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.	15 	Water samples should be taken from as close to the point of use as is practical. At least one sample per distribution system is required. If there are multiple sampling points in a distribution system, then samples are taken from a different location each test (randomize or rotate locations). For farm and indoor agriculture operations, one sample per water source is collected and tested prior to use if >60 days since the last test of the water source. Additional samples are taken at least monthly during use of the water source. A less frequent testing is acceptable if supported by a valid documented risk assessment although there should be at least one water test per season. Where there are more stringent federal, national or local requirements, these requirements should be followed. A ZERO POINT (NONCOMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.

2.09.03b	Do written procedures (SOPs) exist covering proper sampling protocols which include where samples should be taken and how samples should be identified?	10	There should be documented procedures in place detailing how water samples are taken in the field, including stating how samples should be identified i.e. clearly naming the location that the sample was taken, the water source and the date (this is important in order to be able to calculate geometric means). Samples should be taken at a point as close to the point of use as possible where water contacts the crop, so as to test both the water source and the water distribution system.
2.09.03c	Do written procedures (SOPs) exist covering corrective measures for unsuitable or abnormal water testing results?	10	Written procedures (SOPs) should exist covering corrective measures not only for the discovery of unsuitable or abnormal water test results but also as a preparation on how to handle such findings.
2.09.03d 	If unsuitable or abnormal results have been detected, have documented corrective measures been performed?	15 	For generic E. coli (unless more stringent guidelines/laws in existence) <126MPN (or CFU)/100mL (rolling geometric mean n=5) and <235MPN (or CFU)/100mL for any single sample. Where thresholds have been exceeded, there should be recorded corrective actions that prevent or mitigate product contamination, including investigations, water retests, and if required, crop testing (E. coli O157:H7 and Salmonella - zero tolerance). Failure to take corrective actions, prevent or mitigate product contamination when there is evidence of high levels or an upward trend of E. coli may result in an automatic failure of the audit. For farms or indoor agriculture operations following the FDA's Produce Safety Rule, the operation needs to ensure they are meeting the requirements for samples to calculate the Geometric Mean (GM) and Statistical Threshold (STV).
2.09.03e 	Where anti-microbial water treatments (e.g. chlorination, U.V., ozone, etc.) are used, are there records of the monitoring frequencies, results and where necessary the corrective actions?	15 	Where any water treatment is performed at the source (e.g., well, canal, holding tank) this should be monitored. The strength of anti-microbial chemicals should be checked using an appropriate method for the anti-microbial in use (e.g., chemical reaction based test or as recommended by the disinfectant supplier). If using an anti-microbial treatment system (e.g. chlorination), there should be monitoring logs completed on at least a daily basis when the system is being used. Any well "shocking" should be recorded.
2.09.03f	Are records kept for periodic visual inspection of the water source and available for review?	5	"Records" may include calendar books with commentary regarding what was checked, the condition, unusual occurrences, (e.g. issues regarding well cap, well casing, seals, piping tanks, treatment equipment, cross connections, trash, animal presence, pooled water, etc.), and any action taken.
2.09.04	Is open flowing surface water used in the operation? (e.g., river, canal, ditch)	0	Water sourced from canals, rivers, ditches or other open flowing surface water systems may carry more of a risk for contamination than closed water sources. For surface waters, consider the impact of storm events on irrigation practices. Bacterial loads in surface water are generally much higher than other sources, and caution should be exercised when using these waters for irrigation. Information gathering question.
2.09.04	What is this water source used for (e.g., irrigation, crop protection sprays, fertigation, frost/freeze protection, cooling, dust abatement, etc.)?	0	Informational gathering question.
2.09.04	What type of irrigation methods are used (e.g., micro-irrigation, drip, overhead, flood irrigation, furrow irrigation, seepage irrigation, hydroponic (specify type))?	0	Informational gathering question.
2.09.04	Does the water come in contact with the edible portion of the crop?	0	Informational gathering question.



2.09.04a	Are generic <i>E. coli</i> tests conducted on the water (taken from the closest practical point of use) at the required and/or expected frequency? A ZERO POINT (NONCOMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.	15	Water samples should be taken from as close to the point of use as is practical. At least one sample per distribution system is required. If there are multiple sampling points in a distribution system, then samples are taken from a different location each test (randomize or rotate locations). For farm and indoor agriculture operations, one sample per water source is collected and tested prior to use if >60 days since the last test of the water source. Additional samples are taken at least monthly during use of the water source. A less frequent testing is acceptable if supported by a valid documented risk assessment although there should be at least one water test per season. Where there are more stringent federal, national or local requirements, these requirements should be followed. A ZERO POINT (NONCOMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.
2.09.04b	Do written procedures (SOPs) exist covering proper sampling protocols which include where samples should be taken and how samples should be identified?	10	There should be documented procedures in place detailing how water samples are taken in the field, including stating how samples should be identified i.e. clearly naming the location that the sample was taken, the water source and the date (this is important in order to be able to calculate geometric means). Samples should be taken at a point as close to the point of use as possible where water contacts the crop, so as to test both the water source and the water distribution system.
2.09.04c	Do written procedures (SOPs) exist covering corrective measures for unsuitable or abnormal water testing results?	10	Written procedures (SOPs) should exist covering corrective measures not only for the discovery of unsuitable or abnormal water test results but also as a preparation on how to handle such findings.
2.09.04d	If unsuitable or abnormal results have been detected, have documented corrective measures been performed?	15	For generic <i>E. coli</i> (unless more stringent guidelines/laws in existence) <126MPN (or CFU)/100mL (rolling geometric mean n=5) and <235MPN (or CFU)/100mL for any single sample. Where thresholds have been exceeded, there should be recorded corrective actions that prevent or mitigate product contamination, including investigations, water retests, and if required, crop testing (<i>E. coli</i> O157:H7 and <i>Salmonella</i> - zero tolerance). Failure to take corrective actions, prevent or mitigate product contamination when there is evidence of high levels or an upward trend of <i>E. coli</i> may result in an automatic failure of the audit. For farms or indoor agriculture operations following the FDA's Produce Safety Rule, the operation needs to ensure they are meeting the requirements for samples to calculate the Geometric Mean (GM) and Statistical Threshold (STV).
2.09.04e	Where anti-microbial water treatments (e.g. chlorination, U.V., ozone, etc.) are used, are there records of the monitoring frequencies, results and where necessary the corrective actions?	15	Where any water treatment is performed at the source (e.g., well, canal, holding tank) this should be monitored. The strength of anti-microbial chemicals should be checked using an appropriate method for the anti-microbial in use (e.g., chemical reaction based test or as recommended by the disinfectant supplier). If using an anti-microbial treatment system (e.g. chlorination), there should be monitoring logs completed on at least a daily basis when the system is being used. Any well "shocking" should be recorded.
2.09.04f	Are records kept for periodic visual inspection of the water source and available for review?	5	"Records" may include calendar books with commentary regarding what was checked, the condition, unusual occurrences, (e.g. issues regarding well cap, well casing, seals, piping tanks, treatment equipment, cross connections, trash, animal presence, pooled water, etc.), and any action taken.











2.09.05	Is reclaimed water used in the operation? <i>Note, this refers to wastewater that has gone through a treatment process.</i>	0	Information gathering question. Reclaimed water should be treated with adequate disinfection systems and tested frequently, ideally under the direction of a water reclamation authority or other management body. Reclaimed water should be subject to applicable local and national regulations and standards including World Health Organisation (WHO) guidelines for the safe use of wastewater, excreta and greywater in agriculture. Prior to using this water for agricultural purposes, growers should check with regulatory bodies to determine the appropriate parameters and tolerances to be used.
2.09.05	What is this water source used for (e.g., irrigation, crop protection sprays, fertigation, frost/freeze protection, cooling, dust abatement, etc.)?	0	Informational gathering question.
2.09.05	What type of irrigation methods are used (e.g., micro-irrigation, drip, overhead, flood irrigation, furrow irrigation, seepage irrigation, hydroponic (specify type))?	0	Informational gathering question.
2.09.05	Does the water come in contact with the edible portion of the crop?	0	Informational gathering question.
2.09.05a 	Are generic <i>E. coli</i> tests conducted on the water (taken from the closest practical point of use) at the required and/or expected frequency? A ZERO POINT (NONCOMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.	15 	Water samples should be taken from as close to the point of use as is practical. At least one sample per distribution system is required. If there are multiple sampling points in a distribution system, then samples are taken from a different location each test (randomize or rotate locations). For farm and indoor agriculture operations, one sample per water source is collected and tested prior to use if >60 days since the last test of the water source. Additional samples are taken at least monthly during use of the water source. A less frequent testing is acceptable if supported by a valid documented risk assessment although there should be at least one water test per season. Where there are more stringent federal, national or local requirements, these requirements should be followed. A ZERO POINT (NONCOMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.
2.09.05b	Do written procedures (SOPs) exist covering proper sampling protocols which include where samples should be taken and how samples should be identified?	10	There should be documented procedures in place detailing how water samples are taken in the field, including stating how samples should be identified i.e. clearly naming the location that the sample was taken, the water source and the date (this is important in order to be able to calculate geometric means). Samples should be taken at a point as close to the point of use as possible where water contacts the crop, so as to test both the water source and the water distribution system.
2.09.05c	Do written procedures (SOPs) exist covering corrective measures for unsuitable or abnormal water testing results?	10	Written procedures (SOPs) should exist covering corrective measures not only for the discovery of unsuitable or abnormal water test results but also as a preparation on how to handle such findings.
2.09.05d 	If unsuitable or abnormal results have been detected, have documented corrective measures been performed?	15 	For generic <i>E. coli</i> (unless more stringent guidelines/laws in existence) <126MPN (or CFU)/100mL (rolling geometric mean n=5) and <235MPN (or CFU)/100mL for any single sample. Where thresholds have been exceeded, there should be recorded corrective actions that prevent or mitigate product contamination, including investigations, water retests, and if required, crop testing (<i>E. coli</i> O157:H7 and <i>Salmonella</i> - zero tolerance). Failure to take corrective actions, prevent or mitigate product contamination when there is evidence of high levels or an upward trend of <i>E. coli</i> may result in an automatic failure of the audit. For farms or indoor agriculture operations following the FDA's Produce Safety Rule, the operation needs to ensure they are meeting the requirements for samples to calculate the Geometric Mean (GM) and Statistical Threshold (STV).







2.09.05e 	Where anti-microbial water treatments (e.g. chlorination, U.V., ozone, etc.) are used, are there records of the monitoring frequencies, results and where necessary the corrective actions?	15 	Where any water treatment is performed at the source (e.g., well, canal, holding tank) this should be monitored. The strength of anti-microbial chemicals should be checked using an appropriate method for the anti-microbial in use (e.g., chemical reaction based test or as recommended by the disinfectant supplier). If using an anti-microbial treatment system (e.g. chlorination), there should be monitoring logs completed on at least a daily basis when the system is being used. Any well “shocking” should be recorded.
2.09.05f	Are records kept for periodic visual inspection of the water source and available for review?	5	“Records” may include calendar books with commentary regarding what was checked, the condition, unusual occurrences, (e.g. issues regarding well cap, well casing, seals, piping tanks, treatment equipment, cross connections, trash, animal presence, pooled water, etc.), and any action taken.
2.09.06	Is tail water (run-off water including hydroponics) used in the operation?	0	Tail water return systems, including hydroponics, catch spilled or runoff water and pump the water back to the top of the field. Information gathering question.
2.09.06	What is this water source used for (e.g., irrigation, crop protection sprays, fertigation, frost/freeze protection, cooling, dust abatement, etc.)?	0	Informational gathering question.
2.09.06	What type of irrigation methods are used (e.g., micro-irrigation, drip, overhead, flood irrigation, furrow irrigation, seepage irrigation, hydroponic (specify type))?	0	Informational gathering question.
2.09.06	Does the water come in contact with the edible portion of the crop?	0	Informational gathering question.
2.09.06a 	Are generic <i>E. coli</i> tests conducted on the water (taken from the closest practical point of use) at the required and/or expected frequency? A ZERO POINT (NONCOMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.	15 	Water samples should be taken from as close to the point of use as is practical. At least one sample per distribution system is required. If there are multiple sampling points in a distribution system, then samples are taken from a different location each test (randomize or rotate locations). For farm and indoor agriculture operations, one sample per water source is collected and tested prior to use if >60 days since the last test of the water source. Additional samples are taken at least monthly during use of the water source. A less frequent testing is acceptable if supported by a valid documented risk assessment although there should be at least one water test per season. Where there are more stringent federal, national or local requirements, these requirements should be followed. A ZERO POINT (NONCOMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.
2.09.06b	Do written procedures (SOPs) exist covering proper sampling protocols which include where samples should be taken and how samples should be identified?	10	There should be documented procedures in place detailing how water samples are taken in the field, including stating how samples should be identified i.e. clearly naming the location that the sample was taken, the water source and the date (this is important in order to be able to calculate geometric means). Samples should be taken at a point as close to the point of use as possible where water contacts the crop, so as to test both the water source and the water distribution system.
2.09.06c	Do written procedures (SOPs) exist covering corrective measures for unsuitable or abnormal water testing results?	10	Written procedures (SOPs) should exist covering corrective measures not only for the discovery of unsuitable or abnormal water test results but also as a preparation on how to handle such findings.

2.09.06d 	If unsuitable or abnormal results have been detected, have documented corrective measures been performed?	15 	For generic <i>E. coli</i> (unless more stringent guidelines/laws in existence) <126MPN (or CFU)/100mL (rolling geometric mean n=5) and <235MPN (or CFU)/100mL for any single sample. Where thresholds have been exceeded, there should be recorded corrective actions that prevent or mitigate product contamination, including investigations, water retests, and if required, crop testing (<i>E. coli</i> O157:H7 and <i>Salmonella</i> - zero tolerance). Failure to take corrective actions, prevent or mitigate product contamination when there is evidence of high levels or an upward trend of <i>E. coli</i> may result in an automatic failure of the audit. For farms or indoor agriculture operations following the FDA's Produce Safety Rule, the operation needs to ensure they are meeting the requirements for samples to calculate the Geometric Mean (GM) and Statistical Threshold (STV).
2.09.06e 	Where anti-microbial water treatments (e.g. chlorination, U.V., ozone, etc.) are used, are there records of the monitoring frequencies, results and where necessary the corrective actions?	15 	Where any water treatment is performed at the source (e.g., well, canal, holding tank) this should be monitored. The strength of anti-microbial chemicals should be checked using an appropriate method for the anti-microbial in use (e.g., chemical reaction based test or as recommended by the disinfectant supplier). If using an anti-microbial treatment system (e.g. chlorination), there should be monitoring logs completed on at least a daily basis when the system is being used. Any well "shocking" should be recorded.
2.09.06f	Are records kept for periodic visual inspection of the water source and available for review?	5	"Records" may include calendar books with commentary regarding what was checked, the condition, unusual occurrences, (e.g. issues regarding well cap, well casing, seals, piping tanks, treatment equipment, cross connections, trash, animal presence, pooled water, etc.), and any action taken.
2.09.07	Is dryland farming used in the growing operation	0	Crop production that relies only on rainfall. Information gathering question.
2.09.08 	Are there backflow prevention devices on all main lines, including where chemical, fertilizer and pesticide applications are made?	10 	Water systems should be fitted with backflow prevention devices to prevent contamination of the water supply. Main water lines should be fitted with back-flow protection for the incoming water (no matter what the source). Individual water lines should be fitted with backflow protection where practical.
2.09.09 	If the operation stores water (tank, cistern, container), is the storage container well maintained?	15 	Container should be structurally sound with no evidence of damage or rust, no vegetation growing on or in the container. The base of the container should be free from debris and weeds. Access lids are properly secured and any vents, overflow and drains are screened. Air gaps are present and should be at least twice the diameter of the water supply inlet and not be less than 25 mm (1 inch).


PESTICIDE USAGE

Question No.	Question	Total Points	Expectation
2.10.01 	Are there up-to-date records of all pesticides applied during the growth cycle? A ZERO POINT (NON-COMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.	15 	The growing operation should follow a pesticide application record keeping program that at least includes the following: date and time of application, crop name, treated area size and location (must be traceable), brand/product name, EPA (or equivalent) registration information, active ingredient, amount applied (rate/dosage), applicator identification, pre-harvest interval, restricted entry interval, application equipment identification and target pests. A ZERO POINT (NON-COMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.

2.10.02 	Are all pesticides applied during the growth cycle authorized/registered by the authority/government of the country of production? ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.	15 	Application records should show all pesticides applied during the growth cycle are officially registered by the country of production for the target crop (e.g. EPA in the US, COFEPRIS in Mexico, SAG in Chile, Pest Management Regulatory Agency (PMRA) in Canada). In countries where there is approval for its use, this is acceptable, when the program is operated by the government and considers at a minimum the target crop, pesticide trade name and active ingredient, formulation, dosage, pre-harvest intervals and target pest(s) or in cases where the government authorizes an active ingredient but not a trade name, there must be evidence of compliance with the MRLs of the destination countries for the applied “authorized” active ingredient (see 2.10.05) When pesticide product registration/authorization information does not exist for the target crop in the country of production or there are not enough products registered/authorized to control a pest or disease (partial registration/authorization), extrapolation is possible if that practice is allowed by the country of production (e.g. in Mexico “Anexo Técnico 1. Requisitos Generales para la Certificación y Reconocimiento de Sistemas de Riesgos de Contaminación (SRRC) Buen Uso y Manejo de Plaguicidas (BUMP) o Buenas Prácticas Agrícolas en la Actividad de Cosecha (BPCo) durante la producción primaria de vegetales – Section 12.3 should be considered. ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.
2.10.03 	Are all pesticides used during the growth cycle applied as recommended/directed in the label? ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.	15 	Application records should show that pesticides used during the growth cycle are applied in accordance with label directions and any federal, state or local regulation(s). In operations applying pesticides “authorized” by the government, where use directions are not in the label, application records should show “authorization program” use/ application directions are followed.
2.10.04 	Where harvesting is restricted by pre-harvest intervals, are required pre-harvest intervals on product labels, national (e.g., EPA) registration and any federal, state or local regulations and guidelines being adhered to? ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.	15 	Application and harvest records show pre-harvest intervals on product labels, national (e.g., EPA) registration and any federal, state or local regulations and guidelines are being adhered to. In operations applying pesticides “authorized” by the government, where use directions are not in the label, application and harvest records show the “authorization program” directions for pre-harvest intervals are followed. ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.
2.10.05 	Where products are destined for export, is there information for pesticide Maximum Residue Limits (MRLs) compliance considering country of destination, target crop(s), and active ingredients applied?	15 	Where products are destined for export, the operation should have documented evidence about the MRL requirements for each country of destination for each pesticide (active ingredient) applied during the growth cycle. If there is no MRL defined by the country of destination for any active ingredient applied, the operation should have documented evidence of the applicable regulations in that country (e.g. default MRL, Codex Alimentarius, non-detectable, etc.). In the case where the MRLs have been standardized or harmonized for a group of countries (i.e. European Union) it is acceptable that the operation demonstrate compliance by referencing the “list” of MRLs issued from the formal body that represents those countries for this purpose. This question is Not Applicable if the product is only sold in the country of production (domestic market).
2.10.06 	Where products are destined for export, is there evidence that Maximum Residue Limits (MRLs) of the intended markets are met?	15 	Maximum Residue Limits (MRLs) analysis should be performed when the MRLs of the destination countries are lower (stricter) than the country of production. This assumes that grower is meeting country of origin MRL and label requirements. MRL test results and records should demonstrate that products/crops meet MRL regulations in those intended markets and any non-conforming product is diverted from those markets. This question is Not Applicable if the product is only sold in the country of production (domestic market).

2.10.07 	Is there a documented procedure for the pesticide applications, considering mixing and loading, applying, and equipment cleaning?	15 	There should be a documented procedure for pesticide applications, specifically mixing and loading, application procedures and equipment cleaning. The procedure should adhere to the product label and include: requiring activity to be in a well-ventilated, well-lit area away from unprotected people, food and other items that might be contaminated; necessary PPE, re-entry intervals, excessive winds, posting of treated areas, etc; how to rinse and clean pesticide equipment including measuring devices, mixing containers and application equipment.
2.10.08 	Is there documentation that shows the individual(s) making decisions for pesticide applications is competent?	15 	Current valid certificates, licenses, another form of proof of training recognized by prevailing national/local standards and guidelines should be available for the individual(s) making decisions on pesticide applications (e.g., choice of pesticides, application timings, rates, etc.).
2.10.09 	Is there documentation that shows that individuals who handle pesticide materials are trained and are under the supervision of a trained person?	15 	All workers who handle pesticides must have current certificates, licenses, or other forms of proof of training (recognized by prevailing national/local standards and guidelines) qualifying them to do so independently or they must have proof of training (in-house or external) and be under the supervision of a worker who can do so independently.

Where laws, commodity specific guidelines and/or best practice recommendations exist and are derived from a reputable source, then these practices and parameters should be used. Audit users should allow a degree of risk association if laws, guidelines, best practices, etc., have not been documented.

 Caution symbol questions are of essential importance to food safety due to potential concern(s) regarding the conformity of the product/processes or there are legal concerns if not in total compliance. Please refer to **PrimusGFS General Regulations - Appendix 3 Guidance for Closure of Deficiencies and Corrective Actions** for details.

Document Revision History		
Date	Rev.#	Description
1/19/2021	0	Initial
7/20/2021	1	Changes to questions 2.02.03a, 2.08.01 & 2.09.05
8/27/2021	2	Removed text on question 2.02.04