

2019

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

# **QUESTIONS & EXPECTATIONS**

PrimusGFS v3.1

## **MODULE 2**

#### **FARM**

**Good Agricultural Practices** Requirements







POWERED



CONNECTED



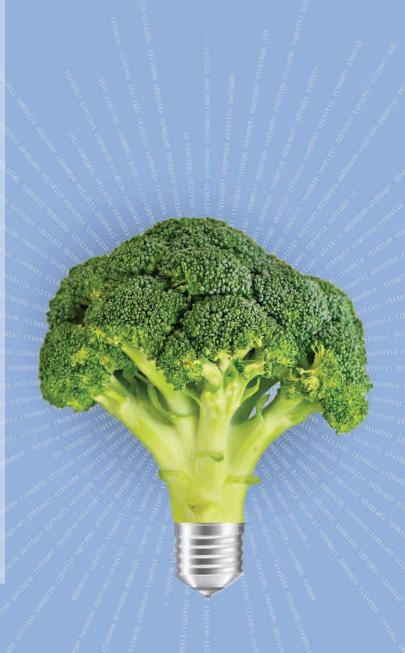
SUPPORTED

GLOBAL

RECOGNIZED

primusgfs.com | azzule.com







### Introduction

## PrimusGFS v3.1

#### **Acknowledgements**

Azzule Systems gained valuable feedback from several of our clients, including indoor agricultural operations in Mexico, as well as from Certification Bodies, Training Centers, and industry experts at-large during the implementation of PrimusGFS v3.0. 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 v3.1.

Version 3.1 satisfies the needs of users from a local to a global scale with flexible modules and a variety of addenda developed to ensure strength in programs, regulatory compliance, and marketability. 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 v3.1: Our Certification Bodies and Training Centers, and in alphabetical order, Ashley Bell (Cloche Technical Solutions), Monica Canales (Cal-Pac Food Safety), Cailin Colwell (Pasquinelli Produce), Megan Crivelli (The Produce Nerd), Debra Garrison (Debra Garrison Consulting, LLC), Pavel Gonzalez, Elena Jimenez (Sunkist Growers, Inc.), Clarisa Molina (Ser-Ka Solutions), Hector Pedraza (Robinson Fresh), Tina Price (T. Price & Associates, LLC), Jeff Saleen (Bonipak Produce), Sarah Schlicher, Bruce Wilkins (CoActive Food Group, LLC).

#### **Powered by Azzule Systems**

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 allows participating operations to gain market access and visibility in promoting their food safety commitments to a large network of current and potential customers.

primusgfs.com | azzule.com







### PrimusGFS v3.1

# **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.

Santa Maria, California | United States of America | **+1-805-862-4219**Culiacán, Sinaloa | Mexico | **+52-667-716-5037**Viña del Mar | Chile | **+56-32-332-5045** 

primusgfs.com | azzule.com





#### QUESTIONS & EXPECTATIONS

#### **MODULE 2: FARM**

GENERA	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 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?  Informational Gathering Question.	0	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. <b>Informational Gathering Question.</b>			
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. All workers 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.			
2.01.04	Are the necessary food defense controls implemented in the operation?	5	The operation should have implemented the necessary controls for preventing intentional contamination. These measures should be based on the risk(s) associated with the operation, as is detailed in the food defense plan (1.08.02). Some high risk areas could be water sources, storage areas for chemicals, equipment, packaging, utensils or other items used, personnel, visitors, etc.			
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), 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	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.			
2.02.04	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.			



QUESTIONS & EXPECTATIONS

#### **MODULE 2: FARM**

2.02.05	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.
2.02.06	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.
2.02.07	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 is not a risk of contamination to the product, water sources, production areas, equipment, packaging materials, etc.
2.02.08	Is the audited area free from animal presence and/or animal activity (wild or domestic)? If Yes, go to 2.02.09.	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).
2.02.08a	Is there any evidence of fecal matter in the audited area?	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.
2.02.08b	Is the fecal matter found in the audited area, a systematic event (not sporadic)? ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.	15	Animal fecal matter has the potential of representing contamination to the product being grown. Produce that has come into direct contact with fecal matter is not to be harvested. A "no harvest zone" 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 a qualified worker and include appropriate corrective and preventative actions. This question is "no" if the grower has already noted this issue and performed adequate corrective actions. Consideration of the maturity stage and type of crop involved is required. If this question is answered Yes, automatic failure of this audit will result. 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.
2.02.09	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.



QUESTIONS & EXPECTATIONS

#### **MODULE 2: FARM**

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	Informational Gathering Question. Land should be purchased or leased that has previously been successfully utilized for growing produce for human consumption, 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 land had been used 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? 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 growing season? 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 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 documented evidence (archived for 2 years) 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 product and/or 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 to ensure the product is safe for human consumption or prior to planting. Soil testing should indicate soil levels of microorganisms lower than the standards for processed compost. 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.



QUESTIONS & EXPECTATIONS

#### **MODULE 2: FARM**

GOOD AGRICULTURAL PRACTICES REQUIREMENTS

2.03.05	Has a documented risk assessment been conducted at least annually for the operation?	10	A documented risk assessment of the growing area and surrounding areas should be performed and documented annually, and when any changes are made to the growing area, 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 sources (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, prevailing weather conditions or weather events. and any other applicable areas. Farms and indoor agriculture operations following the CA or AZ LGMA should have 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.
2.03.05a	If any risk is identified, have corrective actions and/ or preventative measures been documented and implemented?	10	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.

#### ADJACENT LAND USE

ADJAGE	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.	10	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 (uphill from the crop or downhill from the crop) 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 have 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, wild animals, grazing lands (includes homes with hobby farms, and non-commercial livestock) in proximity to the growing operation? If No, go to 2.04.03.	10	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	Have physical measures been put in place to restrain domestic and wild animals, grazing lands (includes homes with hobby farms, and non-commercial livestock) 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 (uphill from the crop or downhill from the crop). 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.			



#### QUESTIONS & EXPECTATIONS

#### **MODULE 2: FARM**

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.	10	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.	10	"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 a 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?	10	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.	15	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.



# PRIMUSGFS v3.1 QUESTIONS & EXPECTATIONS

#### **MODULE 2: FARM**

INSPECT	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 program. The records should include the date of the audit, name of the internal auditor, justification for answers, detail 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 growing area, storage area, worker amenities, external areas, worker practices, etc. No down score if another audit checklist is used, as long as all areas are covered.			
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, quantity available, 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). The frequency of the inventory checks may decrease in short season or off-season operations; auditor discretion applies.			
2.05.03	Are all chemicals stored securely, safely and are they labeled correctly?	15	All chemicals (i.e., pesticides, sanitizers, detergents, lubricants, etc.) are required to be stored in a designated area. The chemical storage area to be located away from any raw materials, packaging & finished food products. Spill controls should be in place for opened in use containers.			
2.05.04	Are "food grade" and "non-food grade" chemicals used appropriately, according to the label and stored in a controlled manner?	10	All chemicals applied should be approved by the prevailing authority for their designated use and used according to label instructions. Only food grade lubricants should be used anywhere near product and packaging materials. "Food grade" and "non-food grade" materials should be stored in separate designated areas and adequately labeled. Grease guns and containers should be labeled adequately. Access to non-food grade materials should be limited to those entrusted with the correct use of chemicals.			
2.05.05	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.			



QUESTIONS & EXPECTATIONS

#### **MODULE 2: FARM**

TRAININ	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 and then at some topics covered at least quarterly, but ideally monthly. These trainings should cover food safety and hygiene, the importance of detecting food safety and/or hygiene issues with co-workers and visitors, and all food safety or hygiene issues in which they are responsible. 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 systematically not following food safety requirements. These records should also show corrective actions and evidence that retraining has occurred (where relevant).			
FIELD W	ORKER HYGIENE (APPLIES TO ON-THE-FARM WORK	ERS, NO	OT 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	At least one toilet per 20 workers should be provided, or if more stringent, as per prevailing national/local guidelines, and should be within 1/4 mile or 5 minutes walking distance of where workers are located. Toilet facilities should be available to all workers and visitors. 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 so that they are not parked (if on trailers) too close to the edge of the crop.			
2.07.01b	Are the catch basins of the toilets designed and maintained to prevent contamination (e.g., free from leaks and cracks)?	5	Catch basins from toilets must be designed and maintained properly to prevent contamination onto field, product, packaging and equipment. Catch basins should be free of leaks, cracks and constructed of durable materials that will not degrade or decompose, such as wood.			



QUESTIONS & EXPECTATIONS

#### **MODULE 2: FARM**

2.07.01c	Is there a documented procedure for emptying the catch basin in a hygienic manner and also in a way that prevents product, packaging, equipment, water systems and growing area contamination?	5	If self contained toilets are used, the toilet basins 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 policy should exist and should include a response plan for major leaks or spills.
2.07.01d	Are toilets 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.
2.07.01e	Are the toilet materials constructed of a light color allowing easy evaluation of cleaning performance?	3	Toilets should be constructed of materials light in color, allowing easy evaluation of cleaning performance.
2.07.01f	Are toilets 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).
2.07.01g	Are the toilet facilities and hand washing stations clean and are there records showing toilet 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 (visual signs are allowed). The visuals or 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	Enough 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. 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	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.).
2.07.05	Is there no sign of any worker with boils, sores, open wounds or exhibiting signs of foodborne illness working directly or indirectly with food?	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.



#### QUESTIONS & EXPECTATIONS

#### **MODULE 2: FARM**

Question No.	Question	Total Points	Expectation
AGRONO	OMIC INPUTS		
2.07.12	Have any potential foreign material issues (e.g., metal, glass, plastic) contamination issues been 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.
2.07.11	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.
2.07.10	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.
2.07.09a	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 paper cups, drinking fountains, etc.
2.07.09	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.
2.07.08	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. Potable water should be provided for drinking, following local and national laws.
2.07.07	Worker personal items are not being stored 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 security risks.
2.07.06	Is jewelry confined to a plain wedding band and watches 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.

0	uestion No.	Question	Total Points	Expectation
2	.08.01	Is sewage sludge (biosolids) being used as an input for this operation? Informational Gathering Question.	0	The use of sewage sludge (biosolids), which are by-products of waste water treatment is an automatic failure for indoor growing operations, and also where specifically prohibited under best management practices (e.g., LGMA, T-GAPs). Informational Gathering Question.



# PRIMUSGFS v3.1 QUESTIONS & EXPECTATIONS

#### **MODULE 2: FARM**

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. <b>ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.</b>
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.
2.08.01c	Are applications incorporated into the soil prior to planting or bud burst for tree crops and not applied during the growing season?	10	If used, the applications should be incorporated into the soil prior to planting or bud burst for tree crops.
2.08.01d	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., Cadmium (Cd) Arsenic (As), Chromium (Cr), Lead (Pb), Mercury (Hg), Nickel (Ni), and Vanadium (V)).
2.08.01e	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	There should be evidence that each laboratory test result (certificate of analysis) provided is traceable to each material used. (e.g., CoA is traced to each lot of crop treatment used). Tests should include microbiological analyses. As minimum, for nonsynthetic crop treatments (e.g., compost teas, fish emulsions, fish meal, blood meal, "bio fertilizers") and for animal based compost microbial testing should include <i>Salmonella</i> spp., <i>E. coli</i> 0157:H7, and <i>Listeria monocytogenes</i> at Negative or <dl (e.g.,="" 1000="" <="" accredited="" an="" and="" any="" aoac="" appropriate="" approved="" at="" coliforms="" fecal="" for="" gram="" include="" laboratory).<="" material="" methods="" mpn="" of="" other="" pathogens="" sampling="" solids="" source="" td="" testing="" the="" total="" using=""></dl>
2.08.01f	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., Cadmium (Cd) Arsenic (As), Chromium (Cr), Lead (Pb), Mercury (Hg), Nickel (Ni), and Vanadium (V)).
2.08.02	Is animal based compost being used as an input for this operation? Informational Gathering Question.	0	This question is specifically targeting compost produced from raw animal manures, as opposed to green waste. Informational 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. <b>ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.</b>
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.
2.08.02c	Are applications incorporated into the soil prior to planting or bud burst for tree crops and not applied during the growing season?	10	If used, the applications should be incorporated into the soil prior to planting or bud burst for tree crops.



QUESTIONS & EXPECTATIONS

#### **MODULE 2: FARM**

2.08.02d	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., Cadmium (Cd) Arsenic (As), Chromium (Cr), Lead (Pb), Mercury (Hg), Nickel (Ni), and Vanadium (V)).
2.08.02e	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	There should be evidence that each laboratory test result (certificate of analysis) provided is traceable to each material used. (e.g., CoA is traced to each lot of crop treatment used). Tests should include microbiological analyses. As minimum, for non-synthetic crop treatments (e.g., compost teas, fish emulsions, fish meal, blood meal, "bio fertilizers") and for animal based compost microbial testing should include <i>Salmonella</i> spp., <i>E. coli</i> 0157:H7, and <i>Listeria monocytogenes</i> at Negative or <dl (e.g.,="" 1000="" <="" accredited="" an="" and="" any="" aoac="" appropriate="" approved="" at="" coliforms="" fecal="" for="" gram="" include="" laboratory).<="" material="" methods="" mpn="" of="" other="" pathogens="" sampling="" solids="" source="" td="" testing="" the="" total="" using=""></dl>
2.08.02f	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., Cadmium (Cd) Arsenic (As), Chromium (Cr), Lead (Pb), Mercury (Hg), Nickel (Ni), and Vanadium (V)).
2.08.03	Is the operation using untreated animal manure as an input? (e.g., raw manure &/or uncomposted, incompletely composted animal manure &/or green waste or non-thermally treated animal manure, etc.). Informational Gathering Question.	0	The use of raw manure and/or uncomposted, incompletely composted animal manure and/or green waste or non-thermally treated animal manure is an automatic failure in the Indoor Agriculture audit. Informational 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. <b>ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.</b>
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.
2.08.03c	Are applications incorporated into the soil prior to planting or bud burst for tree crops and not applied during the growing season?	10	If used, the applications should be incorporated into the soil prior to planting or bud burst for tree crops.
2.08.03d	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., Cadmium (Cd) Arsenic (As), Chromium (Cr), Lead (Pb), Mercury (Hg), Nickel (Ni), and Vanadium (V)).



QUESTIONS & EXPECTATIONS

#### **MODULE 2: FARM**

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	There should be evidence that each laboratory test result (certificate of analysis) provided is traceable to each material used. (e.g., CoA is traced to each lot of crop treatment used). Tests should include microbiological analyses. As minimum, for nonsynthetic crop treatments (e.g., compost teas, fish emulsions, fish meal, blood meal, "bio fertilizers") and for animal based compost microbial testing should include <i>Salmonella</i> spp., <i>E. coli</i> 0157:H7, and <i>Listeria monocytogenes</i> at Negative or <dl (e.g.,="" 1000="" <="" accredited="" an="" and="" any="" aoac="" appropriate="" approved="" at="" coliforms="" fecal="" for="" gram="" include="" laboratory).<="" material="" methods="" mpn="" of="" other="" pathogens="" sampling="" solids="" source="" td="" testing="" the="" total="" using=""></dl>
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., Cadmium (Cd) Arsenic (As), Chromium (Cr), Lead (Pb), Mercury (Hg), Nickel (Ni), and Vanadium (V)).
Is the operation using non-synthetic crop treatments as an input? (e.g., compost teas, fish emulsions, fish meal, blood meal, bio-fertilizers, etc.) Informational 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.
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. <b>ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.</b>
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.
Is the material applied in a manner that does not contact the edible portions of the crop?	15	Non-synthetic treatments that contain animal products or animal manures should not be applied to the edible portions of crops.
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., Cadmium (Cd) Arsenic (As), Chromium (Cr), Lead (Pb), Mercury (Hg), Nickel (Ni), and Vanadium (V)).
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	There should be evidence that each laboratory test result (certificate of analysis) provided is traceable to each material used. (e.g., CoA is traced to each lot of crop treatment used). Tests should include microbiological analyses. As minimum, for non-synthetic crop treatments (e.g., compost teas, fish emulsions, fish meal, blood meal, "bio fertilizers") and for animal based compost microbial testing should include <i>Salmonella</i> spp., <i>E. coli</i> 0157:H7, and <i>Listeria monocytogenes</i> at Negative or <dl (e.g.,="" 1000="" <="" accredited="" an="" and="" any="" aoac="" appropriate="" approved="" at="" coliforms="" fecal="" for="" gram="" include="" laboratory).<="" material="" methods="" mpn="" of="" other="" pathogens="" sampling="" solids="" source="" td="" testing="" the="" total="" using=""></dl>
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., Cadmium (Cd) Arsenic (As), Chromium (Cr), Lead (Pb), Mercury (Hg), Nickel (Ni), and Vanadium (V)).
	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?  Are there Certificate(s) of Analysis (CoA), letters of guarantee or other documents from the supplier(s) that cover heavy metal testing?  Is the operation using non-synthetic crop treatments as an input? (e.g., compost teas, fish emulsions, fish meal, blood meal, bio-fertilizers, etc.) Informational Gathering Question.  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.  Are there fertilizer use records available for each growing area, including application records?  Is the material applied in a manner that does not contact the edible portions of the crop?  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?  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?  Are there Certificate(s) of Analysis (CoA), letters of guarantee or other documents from the supplier(s) that	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?  Are there Certificate(s) of Analysis (CoA), letters of guarantee or other documents from the supplier(s) that cover heavy metal testing?  Is the operation using non-synthetic crop treatments as an input? (e.g., compost teas, fish emulsions, fish meal, blood meal, bio-fertilizers, etc.) Informational Gathering Question.  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.  Are there fertilizer use records available for each growing area, including application records?  Is the material applied in a manner that does not contact the edible portions of the crop?  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?  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?  Are there Certificate(s) of Analysis (CoA), letters of guarantee or other documents from the supplier(s) that



#### QUESTIONS & EXPECTATIONS

#### **MODULE 2: FARM**

2.08.05	Is the operation using soil or substrate amendments as an input? (e.g., plant by-products, humates, seaweed, inoculants, and conditioner, etc.) Informational 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, humates, seaweed, and conditioners. Informational 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.
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., Cadmium (Cd) Arsenic (As), Chromium (Cr), Lead (Pb), Mercury (Hg), Nickel (Ni), and Vanadium (V)).
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	Is the operation using inorganic fertilizers as an input? (e.g., ammonium nitrate, ammonium sulfate, chemically synthesized urea, etc.) Informational 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. <b>ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.</b>
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., Cadmium (Cd) Arsenic (As), Chromium (Cr), Lead (Pb), Mercury (Hg), Nickel (Ni), and Vanadium (V)).



QUESTIONS & EXPECTATIONS

#### **MODULE 2: FARM**

IRRIGATI	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 source of use) at the required and/or expected frequency? <b>A ZERO POINT (NONCOMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.</b>	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> 0157: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).		



#### QUESTIONS & EXPECTATIONS

#### **MODULE 2: FARM**

2.09.01e	Are there records of any anti-microbial water treatment (e.g. chlorination, U.V., ozone, etc.), and is testing current and available?	15	Any water treatment performed at the source (e.g., well, canal, holding tank) 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, test probe, ORP meter or as recommended by the disinfectant supplier).
2.09.01f	Are records kept for periodic visual inspection and disinfection (if occurring) of the water source and available for review?	5	"Records" may include calendar books with commentary regarding what was checked, the condition, unusual occurrences, and any action taken. If using a disinfection injection system (e.g. chlorination), there should be monitoring logs completed on at least a daily basis. Any well "shocking" should be recorded. The appropriate support documentation should be available for review.
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 source 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.



QUESTIONS & EXPECTATIONS

#### **MODULE 2: FARM**

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> 0157: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	Are there records of any anti-microbial water treatment (e.g. chlorination, U.V., ozone, etc.), and is testing current and available?	15	Any water treatment performed at the source (e.g., well, canal, holding tank) 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, test probe, ORP meter or as recommended by the disinfectant supplier).
2.09.02f	Are records kept for periodic visual inspection and disinfection (if occurring) of the water source and available for review?	5	"Records" may include calendar books with commentary regarding what was checked, the condition, unusual occurrences, and any action taken. If using a disinfection injection system (e.g. chlorination), there should be monitoring logs completed on at least a daily basis. Any well "shocking" should be recorded. The appropriate support documentation should be available for review.
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 source 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.



#### QUESTIONS & EXPECTATIONS

#### **MODULE 2: FARM**

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 <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> 0157: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).
2.09.03e	Are there records of any anti-microbial water treatment (e.g. chlorination, U.V., ozone, etc.), and is testing current and available?	15	Any water treatment performed at the source (e.g., well, canal, holding tank) 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, test probe, ORP meter or as recommended by the disinfectant supplier).
2.09.03f	Are records kept for periodic visual inspection and disinfection (if occurring) of the water source and available for review?	5	"Records" may include calendar books with commentary regarding what was checked, the condition, unusual occurrences, and any action taken. If using a disinfection injection system (e.g. chlorination), there should be monitoring logs completed on at least a daily basis. Any well "shocking" should be recorded. The appropriate support documentation should be available for review.
2.09.04	Is open flowing surface water used in the operation? (e.g., river, canal, ditch)	0	informational 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 source 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.



QUESTIONS & EXPECTATIONS

#### **MODULE 2: FARM**

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> 0157: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	Are there records of any anti-microbial water treatment (e.g. chlorination, U.V., ozone, etc.), and is testing current and available?	15	Any water treatment performed at the source (e.g., well, canal, holding tank) 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, test probe, ORP meter or as recommended by the disinfectant supplier).
2.09.04f	Are records kept for periodic visual inspection and disinfection (if occurring) of the water source and available for review?	5	"Records" may include calendar books with commentary regarding what was checked, the condition, unusual occurrences, and any action taken. If using a disinfection injection system (e.g. chlorination), there should be monitoring logs completed on at least a daily basis. Any well "shocking" should be recorded. The appropriate support documentation should be available for review.
2.09.05	Is reclaimed water used in the operation?	0	informational gathering question.
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.



QUESTIONS & EXPECTATIONS

#### **MODULE 2: FARM**

2.09.05a	Are generic <i>E.coli</i> tests conducted on the water (taken from the closest practical source 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> 0157: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	Are there records of any anti-microbial water treatment (e.g. chlorination, U.V., ozone, etc.), and is testing current and available?	15	Any water treatment performed at the source (e.g., well, canal, holding tank) 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, test probe, ORP meter or as recommended by the disinfectant supplier).
2.09.05f	Are records kept for periodic visual inspection and disinfection (if occurring) of the water source and available for review?	5	"Records" may include calendar books with commentary regarding what was checked, the condition, unusual occurrences, and any action taken. If using a disinfection injection system (e.g. chlorination), there should be monitoring logs completed on at least a daily basis. Any well "shocking" should be recorded. The appropriate support documentation should be available for review.
2.09.06	Is tail water (including hydroponics) used in the operation?	0	informational 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.



QUESTIONS & EXPECTATIONS

#### **MODULE 2: FARM**

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 source 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> 0157: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	Are there records of any anti-microbial water treatment (e.g. chlorination, U.V., ozone, etc.), and is testing current and available?	15	Any water treatment performed at the source (e.g., well, canal, holding tank) 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, test probe, ORP meter or as recommended by the disinfectant supplier).
2.09.06f	Are records kept for periodic visual inspection and disinfection (if occurring) of the water source and available for review?	5	"Records" may include calendar books with commentary regarding what was checked, the condition, unusual occurrences, and any action taken. If using a disinfection injection system (e.g. chlorination), there should be monitoring logs completed on at least a daily basis. Any well "shocking" should be recorded. The appropriate support documentation should be available for review.
2.09.07	Is dryland farming used in the growing operation?	0	Informational gathering question.



#### QUESTIONS & EXPECTATIONS

#### **MODULE 2: FARM**

GOOD AGRICULTURAL PRACTICES REQUIREMENTS

2.09.08	Is there a documented assessment for each water source covering animal access, upstream contamination/ runoff, proper well condition, water treatment, backflow, maintenance, cross contamination from leaching, recirculating water systems, etc., as applicable?	15	Prior to the first seasonal planting and at least annually and when any changes are made to the system, there should be a documented risk assessment for each water source covering potential physical, chemical and biological hazards from animal access, upstream contamination/runoff, proper well condition, water treatment, water capture, backflow, maintenance, cross contamination from leaching, cross connections, recirculating water systems, etc. If flood or furrow irrigation is used, there needs to be examples of how the operation is minimizing the risk.
2.09.09	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.
2.09.10	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 growing 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 name, pre-harvest interval, restricted entry interval, type of equipment used and target pests. A ZERO POINT (NON-COMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.
2.10.02	Do records show that pesticides and their use are in compliance with all requirements of label direction, national (e.g., EPA) registration and any federal, state or local regulations and guidelines? ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.	15	All pesticides must be registered for such use, as required by prevailing regulation, and used in accordance with label directions. N/A is allowed only when registration/authorization information does not exist for pesticides to be used on target crops in the country of production. ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.
2.10.03	Where products are destined for export, do records show that only pesticides approved for use in destination market(s) are used and are in compliance with all requirements of label direction, national (e.g., EPA) registration and any federal, state or local regulations and guidelines? Corrective actions are required if a non-compliance. If corrective actions are not provided and acceptable by the certification body a failure of the audit is scored.	15	All pesticides must be registered for such use in the destination market, as required by prevailing regulation, and used in accordance with label directions. (i.e. application rates, intended purpose, worker protection standards, personal protection equipment, container storage, disposal).  The grower should provide documented evidence that they are complying with the expectations regarding crop protection products of the country of origin and proof of those expectations. That evidence may be in the form of: chemical records, application methods, rates and dosage, compliance with pre-harvest intervals, or any other relevant information. This question is Not Applicable if the product is sold only in the country of production (domestic market).  Corrective actions are required if a non-compliance. If corrective actions are not provided and acceptable by the certification body a failure of the audit is scored.



QUESTIONS & EXPECTATIONS

#### **MODULE 2: FARM**

2.10.04	Where products are destined for export, are there records showing that pre-harvest intervals and application rates are sufficient to meet MRL entry requirements of the country of export? Records show any non-compliant product is diverted to a market where it meets requirements.  Corrective actions are required if a non-compliance. If corrective actions are not provided and acceptable by the certification body a failure of the audit is scored.	15	Maximum Residue Limits (MRL) tests should be performed. The auditor should review those to ensure it meets MRL entry requirements in the country of destination or the Codex Alimentarius Commission if the country of destination/market follows this MRL compliance. Records show that any non-compliant product is diverted to a market where it meets the requirements. This question is Not Applicable if the product is sold only in the country of production (domestic market).  Corrective actions are required if a non-compliance. If corrective actions are not provided and acceptable by the certification body a failure of the audit is scored.  Reference: http://www.fao.org/fao-who-codexalimentarius/codex-texts/dbs/pestres/en/
2.10.05	For those pesticides that are not registered for use on the target crops in the country of production or if the country does not have, or has a partial legislative framework to cover pesticides, can the grower show that they have registration information, label information, MRL tolerances, etc. for the country of destination?  Corrective actions are required if a non-compliance. If corrective actions are not provided and acceptable by the certification body a failure of the audit is scored.	15	Grower should be aware of the crop protection products registered and/or authorized by a government agency for use in the target crops in the country of production. Where the country of production does not have or has partial legislation covering pesticides, and if the use of pesticides that are registered for the target crop in another country (extrapolation) is not prohibited, the grower must have information for the pesticides in the country(ies) of destination. The information must show: registration for the specific crop, product labels, Maximum Residue Limit (MRL) tolerances and may also include banned chemical lists, and any other relevant guidelines or legislation. If there is no information available for pesticides used that are not registered in the country of production, or its use based on registration, label and other legislation of the destination country, extrapolation is prohibited by the country of production, and an automatic failure will be scored. This question is Not Applicable if the product is sold only in the country of production (domestic market).  Corrective actions are required if a non-compliance. If corrective actions are not provided and acceptable by the certification body a failure of the audit is scored.
2.10.06	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. If this is not followed, an automatic failure will be scored. <b>ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.</b>
2.10.07	Is there a documented procedure for the mixing/loading of pesticides?	5	There should be a documented procedure describing how to mix and load pesticides.  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.
2.10.08	Is there a documented procedure for the application of pesticides?	5	There should be a documented procedure for the application of pesticides. The procedure should adhere to the product label and should include the use of Personal Protective Equipment, re-entry Intervals, posting of treated area, etc.
2.10.09	Is there a documented procedure for the rinsing and cleaning of pesticide equipment?	5	There should be a documented procedure describing how to rinse and clean pesticide equipment. Pesticide equipment includes measuring containers, mixing containers, application equipment and rinseable pesticide containers. The procedure should adhere to the product label, to country, federal, state or local laws and regulations, and should include: rinsing empty equipment immediately to prevent residues from drying and becoming difficult to remove, and adding a rinsate (water from rinsing containers or equipment) to spray tanks as part of the pesticide mixing process.



### QUESTIONS & EXPECTATIONS

#### **MODULE 2: FARM**

GOOD AGRICULTURAL PRACTICES REQUIREMENTS

2.10.10	Is there documentation that shows the individual(s) making decisions for pesticide applications are 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.).
2.10.11	Is there documentation that shows that individuals who handle pesticide materials are trained and are under the supervision of a trained person?	15	Current valid certificates, licenses, or another form of proof of training recognized by prevailing national/local standards and guidelines should be available for supervisors/ workers handling, mixing/loading/and applying pesticide materials.
2.10.12	Are pesticides stored without risk of contamination, in a locked, dedicated area with legible labels, and are empty pesticide containers held and disposed of according to their label and/or regulatory instructions?	10	Pesticide containers should be stored securely: away from other materials, locked, signs posted, away from water source, off floor, well-ventilated, and inventory kept.  Empty pesticide containers should be kept in a secured storage area until they can be recycled or disposed of properly. If containers cannot be refilled, reconditioned, recycled or returned to the manufacturer, they should be crushed, broken or punctured to make them unusable. Containers should be disposed of in accordance with label directions and with federal and state or local laws and regulations. Pesticide containers designed to be returned and refilled should not be reused or tampered with.
2.10.13	Is it evident that the equipment used for pesticide applications is in good working order?	10	All equipment used in pesticide applications should be in good working order so that correct applications can be made, thus reducing potential crop contamination or drift issues.
2.10.14	Are restricted entry interval (REI) signs posted in the area(s) where pesticide applications occur?	10	All agricultural pesticide labeling provides a specific REI. Some regulations provide REIs for certain pesticide/crop combinations. Whenever there is a labeling REI and a regulatory REI for an application, the longer REI must be followed.  Warning signs should be posted before an application when required by the pesticide label, regulations or restricted material permit.  All indoor applications require warning signs.

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.