PrimusGFS v3.1 Rationalization of Changes:

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.

Additions made to the text will appear in red. Where no changes were made you will see "No Change in v3.1". Where text may have been removed you will see neither red text nor the phrase "No Change in v3.1". You may compare v3.0 with version 3.1 where necessary.

GENERAL			
Number	Question	Expectation	Interpretation Guideline
2.01.01	No Change in v3.1	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.	There should be a designated person/persons in charge of the operation's food safety program, including food safety document control and verification of food safety activities and ideally be independent of production. They should have documented formal training or trained by someone that has the documented formal credentials. 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? Information Gathering Question.	Current certification by an accredited organic certification organization (national/local) should cover the audited crops, be on file and available for review. N/A if not growing under organic principles. Information Gathering Question. Score 0 points possible	Organic principles are defined as: a system that relies on ecosystem management rather than external agricultural inputs (http://www.fao.org/docrep/003/ac116e/ac116e02.htm). Current certification by an accredited organic certification agency following a governmental organic program should cover the audited crops, be on file, and available for the auditor to review. Where an inspection has recently taken place, but new certificate is not yet available, there should be documented proof of a recent inspection for the auditor to review. N/A if not growing under organic principles. Information Gathering Question. Score 0 points possible.

SITE			
Number	Question	Expectation	Interpretation Guideline
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.**	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.**	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.** Minor deficiency (10 points) if: • Single/isolated instance risk to the growing areas, product, or water sources. Major deficiency (5 points) if: • Numerous instances of risk to the growing areas, product, or water sources. Non-compliance (0 points) if: • Systematic failure to prevent contamination.
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.	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).	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	No Change in v3.1	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.	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	No Change in v3.1	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.	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.
2.02.09	Is the audited area free of evidence of infants and toddlers?	No Change in v3.1	No Change in v3.1

GROUND HISTORY

Number	Question	Expectation	Interpretation Guideline
2.03.04b	Have soil tests been conducted on the flooded area(s) showing the soil was negative or within an appropriate regulatory agency's approved limits for contaminants?	If flooding has occurred on the farm, product and/or soil, clearance testing should be conducted prior to planting. Soil testing should indicate 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.	If flooding has occurred on the farm, product and/or soil, clearance testing should be conducted prior to planting. Soil testing should indicate 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?	No Change in v3.1	No Change in v3.1

2.03.05	No Change in v3.1	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 E. coli), 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.	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 E. coli), 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. Minor deficiency (7 points) if: • Single/isolated instance(s) of errors or omissions on the risk analysis. Major deficiency (3 points) if: • Numerous instance(s) of errors or omissions on the risk analysis. • Last documented risk assessment was done over 12 months ago. Non-compliance (0 points) if: • Multiple systematic errors on the risk analysis. • No documented risk analysis.

ADJACENT LAND USE

Number	Question	Expectation	Interpretation Guideline
2.04.01a	No Change in v3.1	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.	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.

INSPECTION			
Number	Question	Expectation	Interpretation Guideline
2.05.01	No Change in v3.1	No Change in v3.1	There should be records of the internal audits performed at each operation, with the frequency defined in the internal audit program. Frequency depends on the type and size of the operation. The records should include the date of the audit, name of the internal auditor, justification for the answers, detail any deficiencies found and the corrective action(s) 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. See 1.04 regarding internal audit schedule.
2.05.02	No Change in v3.1	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.	Chemical inventories should be on file. 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?	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.	Chemicals (i.e., pesticides, sanitizers, detergents, lubricants, etc.) located on-site are required to be stored in a designated area. Access to chemicals needs to be controlled, so that only workers who understand the risks involved and have been trained properly are allowed to access these chemicals. The chemical storage area should be located away from any raw materials, packaging & finished food products. Spill controls should be in place for opened in use containers. All chemical containers should have legible labels of contents; this includes chemicals that have been decanted from master containers into smaller containers. Empty containers should be stored and disposed of safely.

FIELD WORKER HYGIENE (Applies to on-the-farm workers, not the harvesting workers)			
Number	Question	Expectation	Interpretation Guideline
2.07.01	English: No Change in v3.1 Spanish change only: ¿Las instalaciones sanitarias son adecuadas en número y ubicación? **UN PUNTO CERO DE CALIFICACIÓN EN ESTA PREGUNTA RESULTA EN UNA FALLA AUTOMÁTICA DE ESTA AUDITORIA**	No Change in v3.1	Toilet facilities should be available to all workers and visitors, while work is actively occurring. At least one toilet per 20 workers should be provided, or if more stringent, as per prevailing national/ local guidelines. Toilet facility placement should be within ¼ mile or 5 minutes walking distance of where workers are located, or if more stringent, as per prevailing national/ local guidelines. A 5 minute drive is not acceptable, while farm work is actively occurring with groups of three or more workers. Where there are two or less workers present (e.g., spray activities, irrigation check) and workers have transportation that is immediately available to toilets within a 5 minute drive, it is acceptable to score as total compliance. United States Department of Labor 1928 Title Field Sanitation https://www.osha.gov/laws-regs/regulations/standardnumber/1928/1928.110 Minor deficiency (10 points) if: • The toilet facilities are not within ¼ mile or 5 minutes walking distance for crews of three or more. • The toilet facilities are not within a 5 minute driving distance for crews of two or less. Major deficiency (5 points) if: • The operation is not meeting the 1 toilet per 20 workers criteria. Automatic failure (0 points) if: • There are insufficient or inadequate toilet facilities.
2.07.03	English: No Change in v3.1 Spanish only: ¿Las estaciones de lavado de manos son adecuadas en número y están ubicadas de forma adecuada para el acceso de los trabajadores y el uso de monitoreo? **UN PUNTO CERO DE CALIFICACIÓN EN ESTA PREGUNTA RESULTA EN UNA FALLA AUTOMÁTICA DE ESTA AUDITORIA**	No Change in v3.1	An adequate number of hand washing stations, in working order, should be provided to ensure efficient worker flow (1 per 20 people on site), and available to all workers and visitors while work is actively occuring. Hands free is an optimum system. Hand washing stations should be visible and located within close proximity of toilet facilities and 1/4 mile or 5 minutes walking distance of where workers are located. United States Department of Labor 1928 Title Field Sanitation https://www.osha.gov/laws-regs/regulations/standardnumber/1928/1928.110

2.07.09	No Change in v3.1	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.	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.

AGRONOMIC INPUTS

Number	Question	Expectation	Interpretation Guideline
2.08.01b (Sewage sludge (biosolids))	No Change in v3.1	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.	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.
2.08.05b (Soil or Substrate amendment)	No Change in v3.1	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.	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.
2.08.06b (Inorganic Fertilizer)	No Change in v3.1	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.	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.

2.08.01e (Sewage sludge (biosolids)	No Change in v3.1	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 Salmonella spp., E. coli O157:H7, and Listeria monocytogenes at Negative or <DL and include fecal coliforms/gram at < 1000 MPN of total solids and any other pathogens appropriate for the source of material using approved sampling and testing methods (e.g., AOAC and an accredited laboratory).	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 Salmonella spp., E. coli O157:H7, and Listeria monocytogenes at Negative or <DL and include fecal coliforms/gram at < 1000 MPN of total solids and any other pathogens appropriate for the source of material using approved sampling and testing methods (e.g., AOAC and an accredited laboratory). All local and national legislation should also be followed. Where legally allowed, a reduced sampling rate is possible if the material is produced by the auditee (e.g. mushroom growing operations with in-house compost production) and has been through a validated physical/chemical/biological process to inactivate human pathogens (Salmonella spp., E. coli O157:H7, Listeria monocytogenes) and show fecal coliforms/gram <1000 MPN. The auditee has the test analyses that show that the material is safe and proper process control records (e.g., time/temperature records and calibration records, such as, temperature probe) are maintained and available during the audit. Validation studies used must be applicable to the situation at hand and care should be taken not to over extrapolate. The grower should have proof that compost suppliers have cross contamination SOPs and temperature/turning logs. Sampling Plan Options below may be used to determine the definition of lots produced. There should be an indication from the supplier/producer of how lots are determined (i.e. from the information here or from another method). The sampling plans below are taken from current regulations in the state of California (related to bio-solids) and recognized manure-based compost guidelines included under the Leafy Greens Marketing Agreement. Reference: 21 CFR Part 112 Subpart F- Biological Soil Amendments of Animal Origin and Human Waste, for details on treatment processes and microbial testing standards. California state regulations for compost (CCR Title 14 - Chapter 3.1 - Article 7; https://compostingcouncil.org/wp-content/uploads/2013/05/California.pdf NOP 5021 Guidance Compost and Vermicompost in Organic Crop Production; https://www.ams.usda.gov/sites/default/files/media/5021.pdf

2.08.02e (Animal Based Compost)	No Change in v3.1	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 Salmonella spp., E. coli O157:H7, and Listeria monocytogenes at Negative or <DL and include fecal coliforms/gram at < 1000 MPN of total solids and any other pathogens appropriate for the source of material using approved sampling and testing methods (e.g., AOAC and an accredited laboratory).	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 Salmonella spp., E. coli O157:H7, and Listeria monocytogenes at Negative or <DL and include fecal coliforms/gram at < 1000 MPN of total solids and any other pathogens appropriate for the source of material using approved sampling and testing methods (e.g., AOAC and an accredited laboratory). All local and national legislation should also be followed. Where legally allowed, a reduced sampling rate is possible if the material is produced by the auditee (e.g. mushroom growing operations with in-house compost production) and has been through a validated physical/chemical/biological process to inactivate human pathogens (Salmonella spp., E. coli O157:H7, Listeria monocytogenes) and show fecal coliforms/gram <1000 MPN. The auditee has the test analyses that show that the material is safe and proper process control records (e.g., time/temperature records and calibration records, such as, temperature probe) are maintained and available during the audit. Validation studies used must be applicable to the situation at hand and care should be taken not to over extrapolate. The grower should have proof that compost suppliers have cross contamination SOPs and temperature/turning logs. Sampling Plan Options below may be used to determine the definition of lots produced. There should be an indication from the supplier/producer of how lots are determined (i.e. from the information here or from another method). The sampling plans below are taken from current regulations in the state of California (related to bio-solids) and recognized manure-based compost guidelines included under the Leafy Greens Marketing Agreement. Reference: 21 CFR Part 112 Subpart F- Biological Soil Amendments of Animal Origin and Human Waste, for details on treatment processes and microbial testing standards. California state regulations for compost (CCR Title 14 - Chapter 3.1 - Article 7; https://compostingcouncil.org/wp-content/uploads/2013/05/California.pdf NOP 5021 Guidance Compost and Vermicompost in Organic Crop Production; https://www.ams.usda.gov/sites/default/files/media/5021.pdf

2.08.03e (Untreated animal manure)	No Change in v3.1	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 Salmonella spp., E. coli O157:H7, and Listeria monocytogenes at Negative or <DL and include fecal coliforms/gram at < 1000 MPN of total solids and any other pathogens appropriate for the source of material using approved sampling and testing methods (e.g., AOAC and an accredited laboratory).	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 Salmonella spp., E. coli O157:H7, and Listeria monocytogenes at Negative or <DL and include fecal coliforms/gram at < 1000 MPN of total solids and any other pathogens appropriate for the source of material using approved sampling and testing methods (e.g., AOAC and an accredited laboratory). All local and national legislation should also be followed. Where legally allowed, a reduced sampling rate is possible if the material is produced by the auditee (e.g. mushroom growing operations with in-house compost production) and has been through a validated physical/chemical/biological process to inactivate human pathogens (Salmonella spp., E. coli O157:H7, Listeria monocytogenes) and show fecal coliforms/gram <1000 MPN. The auditee has the test analyses that show that the material is safe and proper process control records (e.g., time/temperature records and calibration records, such as, temperature probe) are maintained and available during the audit. Validation studies used must be applicable to the situation at hand and care should be taken not to over extrapolate. The grower should have proof that compost suppliers have cross contamination SOPs and temperature/turning logs. Sampling Plan Options below may be used to determine the definition of lots produced. There should be an indication from the supplier/producer of how lots are determined (i.e. from the information here or from another method). The sampling plans below are taken from current regulations in the state of California (related to bio-solids) and recognized manure-based compost guidelines included under the Leafy Greens Marketing Agreement. Reference: 21 CFR Part 112 Subpart F- Biological Soil Amendments of Animal Origin and Human Waste, for details on treatment processes and microbial testing standards. California state regulations for compost (CCR Title 14 - Chapter 3.1 - Article 7; https://compostingcouncil.org/wp-content/uploads/2013/05/California.pdf NOP 5021 Guidance Compost and Vermicompost in Organic Crop Production; https://www.ams.usda.gov/sites/default/files/media/5021.pdf

2.08.04e (Non-Synthetic Crop Treatment)	No Change in v3.1	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 Salmonella spp., E. coli O157:H7, and Listeria monocytogenes at Negative or <DL and include fecal coliforms/gram at < 1000 MPN of total solids and any other pathogens appropriate for the source of material using approved sampling and testing methods (e.g., AOAC and an accredited laboratory).	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 Salmonella spp., E. coli O157:H7, and Listeria monocytogenes at Negative or <DL and include fecal coliforms/gram at < 1000 MPN of total solids and any other pathogens appropriate for the source of material using approved sampling and testing methods (e.g., AOAC and an accredited laboratory). All local and national legislation should also be followed. Where legally allowed, a reduced sampling rate is possible if the material is produced by the auditee (e.g. mushroom growing operations with in-house compost production) and has been through a validated physical/chemical/biological process to inactivate human pathogens (Salmonella spp., E. coli O157:H7, Listeria monocytogenes) and show fecal coliforms/gram <1000 MPN. The auditee has the test analyses that show that the material is safe and proper process control records (e.g., time/temperature records and calibration records, such as, temperature probe) are maintained and available during the audit. Validation studies used must be applicable to the situation at hand and care should be taken not to over extrapolate. The grower should have proof that compost suppliers have cross contamination SOPs and temperature/turning logs. Sampling Plan Options below may be used to determine the definition of lots produced. There should be an indication from the supplier/producer of how lots are determined (i.e. from the information here or from another method). The sampling plans below are taken from current regulations in the state of California (related to bio-solids) and recognized manure-based compost guidelines included under the Leafy Greens Marketing Agreement. Reference: 21 CFR Part 112 Subpart F- Biological Soil Amendments of Animal Origin and Human Waste, for details on treatment processes and microbial testing standards. California state regulations for compost (CCR Title 14 - Chapter 3.1 - Article 7; https://compostingcouncil.org/wp-content/uploads/2013/05/California.pdf NOP 5021 Guidance Compost and Vermicompost in Organic Crop Production; https://www.ams.usda.gov/sites/default/files/media/5021.pdf
2.08.02g 2.08.04g 2.08.05e 2.08.06d	Removed Question from the farm module due to the question "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?	Removed	Removed

IRRIGATION / WATER USE			
Number	Question	Expectation	Interpretation Guideline
2.09.01a (municipal / district)	Are generic E.coli 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.**	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.**	Microbial water testing, including generic E. coli, should occur for all water sources used for any growing activities like crop protection/fertilizer and frost or freeze prevention programs. 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. If a risk assessment is used to define the frequency, it should include at a minimum the water source, method of application (edible product contact vs non- edible product contact), reference or evidence to the microbial historical data of the water source, and its vulnerability to contamination. A vulnerable water source is one for which there is a potential risk of contamination by fecal matter (e.g. animals grazing upstream of a river abstraction point, overloading of a sewage treatment plant by storm water) or other potential risk factors. As examples, vulnerable sources may be surface water (rivers, lakes, natural ponds), reservoirs supplied by well water or rain water, groundwater collected from shallow wells. Other sources may be vulnerable under specific circumstances and the degree of vulnerability should be established by the grower's risk assessment. In the event the risk assessment indicates contamination risks, the operation should implement adequate measures to prevent and/or mitigate product contamination. **A ZERO POINT (NONCOMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.** References: https://extension.psu.edu/safe-uses-of-agricultural-water https://gaps.cornell.edu/educational-materials/decision-trees/agricultural-water-production/

2.09.02a (Well)	Are generic E.coli 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.**	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.**	Microbial water testing, including generic E. coli, should occur for all water sources used for any growing activities like crop protection/fertilizer and frost or freeze prevention programs. 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. If a risk assessment is used to define the frequency, it should include at a minimum the water source, method of application (edible product contact vs non- edible product contact), reference or evidence to the microbial historical data of the water source, and its vulnerability to contamination. A vulnerable water source is one for which there is a potential risk of contamination by fecal matter (e.g. animals grazing upstream of a river abstraction point, overloading of a sewage treatment plant by storm water) or other potential risk factors. As examples, vulnerable sources may be surface water (rivers, lakes, natural ponds), reservoirs supplied by well water or rain water, groundwater collected from shallow wells. Other sources may be vulnerable under specific circumstances and the degree of vulnerability should be established by the grower's risk assessment. In the event the risk assessment indicates contamination risks, the operation should implement adequate measures to prevent and/or mitigate product contamination. **A ZERO POINT (NONCOMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.** References: https://extension.psu.edu/safe-uses-of-agricultural-water https://gaps.cornell.edu/educational-materials/decision-trees/agricultural-water-production/

2.09.03a (Non-Flowing Surface Water)	Are generic E.coli 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.**	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.**	Microbial water testing, including generic E. coli, should occur for all water sources used for any growing activities like crop protection/fertilizer and frost or freeze prevention programs. 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. If a risk assessment is used to define the frequency, it should include at a minimum the water source, method of application (edible product contact vs non- edible product contact), reference or evidence to the microbial historical data of the water source, and its vulnerability to contamination. A vulnerable water source is one for which there is a potential risk of contamination by fecal matter (e.g. animals grazing upstream of a river abstraction point, overloading of a sewage treatment plant by storm water) or other potential risk factors. As examples, vulnerable sources may be surface water (rivers, lakes, natural ponds), reservoirs supplied by well water or rain water, groundwater collected from shallow wells. Other sources may be vulnerable under specific circumstances and the degree of vulnerability should be established by the grower's risk assessment. In the event the risk assessment indicates contamination risks, the operation should implement adequate measures to prevent and/or mitigate product contamination. **A ZERO POINT (NONCOMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.** References: https://extension.psu.edu/safe-uses-of-agricultural-water https://gaps.cornell.edu/educational-materials/decision-trees/agricultural-water-production/

2.09.04a (Open Flowing Surface Water)	Are generic E.coli 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.**	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.**	Microbial water testing, including generic E. coli, should occur for all water sources used for any growing activities like crop protection/fertilizer and frost or freeze prevention programs. 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. If a risk assessment is used to define the frequency, it should include at a minimum the water source, method of application (edible product contact vs non- edible product contact), reference or evidence to the microbial historical data of the water source, and its vulnerability to contamination. A vulnerable water source is one for which there is a potential risk of contamination by fecal matter (e.g. animals grazing upstream of a river abstraction point, overloading of a sewage treatment plant by storm water) or other potential risk factors. As examples, vulnerable sources may be surface water (rivers, lakes, natural ponds), reservoirs supplied by well water or rain water, groundwater collected from shallow wells. Other sources may be vulnerable under specific circumstances and the degree of vulnerability should be established by the grower's risk assessment. In the event the risk assessment indicates contamination risks, the operation should implement adequate measures to prevent and/or mitigate product contamination. **A ZERO POINT (NONCOMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.** References: https://extension.psu.edu/safe-uses-of-agricultural-water https://gaps.cornell.edu/educational-materials/decision-trees/agricultural-water-production/

2.09.05a (Reclaimed Water)	Are generic E.coli 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.**	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.**	Microbial water testing, including generic E. coli, should occur for all water sources used for any growing activities like crop protection/fertilizer and frost or freeze prevention programs. 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. If a risk assessment is used to define the frequency, it should include at a minimum the water source, method of application (edible product contact vs non- edible product contact), reference or evidence to the microbial historical data of the water source, and its vulnerability to contamination. A vulnerable water source is one for which there is a potential risk of contamination by fecal matter (e.g. animals grazing upstream of a river abstraction point, overloading of a sewage treatment plant by storm water) or other potential risk factors. As examples, vulnerable sources may be surface water (rivers, lakes, natural ponds), reservoirs supplied by well water or rain water, groundwater collected from shallow wells. Other sources may be vulnerable under specific circumstances and the degree of vulnerability should be established by the grower's risk assessment. In the event the risk assessment indicates contamination risks, the operation should implement adequate measures to prevent and/or mitigate product contamination. **A ZERO POINT (NONCOMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.** References: https://extension.psu.edu/safe-uses-of-agricultural-water https://gaps.cornell.edu/educational-materials/decision-trees/agricultural-water-production/

2.09.06a (Tail Water)	Are generic E.coli 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.**	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.**	Microbial water testing, including generic E. coli, should occur for all water sources used for any growing activities like crop protection/fertilizer and frost or freeze prevention programs. 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. If a risk assessment is used to define the frequency, it should include at a minimum the water source, method of application (edible product contact vs non- edible product contact), reference or evidence to the microbial historical data of the water source, and its vulnerability to contamination. A vulnerable water source is one for which there is a potential risk of contamination by fecal matter (e.g. animals grazing upstream of a river abstraction point, overloading of a sewage treatment plant by storm water) or other potential risk factors. As examples, vulnerable sources may be surface water (rivers, lakes, natural ponds), reservoirs supplied by well water or rain water, groundwater collected from shallow wells. Other sources may be vulnerable under specific circumstances and the degree of vulnerability should be established by the grower's risk assessment. In the event the risk assessment indicates contamination risks, the operation should implement adequate measures to prevent and/or mitigate product contamination. **A ZERO POINT (NONCOMPLIANCE) DOWN SCORE IN THIS QUESTION RESULTS IN AUTOMATIC FAILURE OF THIS AUDIT.** References: https://extension.psu.edu/safe-uses-of-agricultural-water https://gaps.cornell.edu/educational-materials/decision-trees/agricultural-water-production/
2.09.01d (Municipal / District)	No Change in v3.1	For generic E. coli (unless more stringent guidelines/laws in existence) <126MPN (or CFU)/100mL (rolling geometric mean n=5) and <235MPN (or CFU)/100mL for any single sample. Where thresholds have been exceeded, there should be recorded corrective actions that prevent or mitigate product contamination, including investigations, water retests, and if required, crop testing (E. coli O157:H7 and Salmonella - zero tolerance). Failure to take corrective actions, prevent or mitigate product contamination when there is evidence of high levels or an upward trend of E. coli may result in an automatic failure of the audit. For farms or indoor agriculture operations following the FDA's Produce Safety Rule, the operation needs to ensure they are meeting the requirements for samples to calculate the Geometric Mean (GM) and Statistical Threshold (STV).	For generic E. coli (unless more stringent guidelines/laws in existence) <126MPN (or CFU)/100mL (rolling geometric mean n=5) and <235MPN (or CFU)/100mL for any single sample. Where thresholds have been exceeded, there should be recorded corrective actions that prevent or mitigate product contamination, including investigations, water retests, and if required, crop testing (E. coli O157:H7 and Salmonella - zero tolerance). Failure to take corrective actions, prevent or mitigate product contamination when there is evidence of high levels or an upward trend of E. coli may result in an automatic failure of the audit. For farms or indoor agriculture operations following the FDA's Produce Safety Rule, the operation needs to ensure they are meeting the requirements for samples to calculate the Geometric Mean (GM) and Statistical Threshold (STV). Reference: https://producesafetyalliance.cornell.edu/food-safety-modernization-act/produce-safety-rule/

2.09.02d (Well)	No Change in v3.1	For generic E. coli (unless more stringent guidelines/laws in existence) <126MPN (or CFU)/100mL (rolling geometric mean n=5) and <235MPN (or CFU)/100mL for any single sample. Where thresholds have been exceeded, there should be recorded corrective actions that prevent or mitigate product contamination, including investigations, water retests, and if required, crop testing (E. coli O157:H7 and Salmonella - zero tolerance). Failure to take corrective actions, prevent or mitigate product contamination when there is evidence of high levels or an upward trend of E. coli may result in an automatic failure of the audit. For farms or indoor agriculture operations following the FDA's Produce Safety Rule, the operation needs to ensure they are meeting the requirements for samples to calculate the Geometric Mean (GM) and Statistical Threshold (STV).	For generic E. coli (unless more stringent guidelines/laws in existence) <126MPN (or CFU)/100mL (rolling geometric mean n=5) and <235MPN (or CFU)/100mL for any single sample. Where thresholds have been exceeded, there should be recorded corrective actions that prevent or mitigate product contamination, including investigations, water retests, and if required, crop testing (E. coli O157:H7 and Salmonella - zero tolerance). Failure to take corrective actions, prevent or mitigate product contamination when there is evidence of high levels or an upward trend of E. coli may result in an automatic failure of the audit. For farms or indoor agriculture operations following the FDA's Produce Safety Rule, the operation needs to ensure they are meeting the requirements for samples to calculate the Geometric Mean (GM) and Statistical Threshold (STV). Reference: https://producesafetyalliance.cornell.edu/food-safety-modernization-act/produce-safety-rule/
2.09.03d (Non-Flowing Surface Water)	No Change in v3.1	For generic E. coli (unless more stringent guidelines/laws in existence) <126MPN (or CFU)/100mL (rolling geometric mean n=5) and <235MPN (or CFU)/100mL for any single sample. Where thresholds have been exceeded, there should be recorded corrective actions that prevent or mitigate product contamination, including investigations, water retests, and if required, crop testing (E. coli O157:H7 and Salmonella - zero tolerance). Failure to take corrective actions, prevent or mitigate product contamination when there is evidence of high levels or an upward trend of E. coli may result in an automatic failure of the audit. For farms or indoor agriculture operations following the FDA's Produce Safety Rule, the operation needs to ensure they are meeting the requirements for samples to calculate the Geometric Mean (GM) and Statistical Threshold (STV).	For generic E. coli (unless more stringent guidelines/laws in existence) <126MPN (or CFU)/100mL (rolling geometric mean n=5) and <235MPN (or CFU)/100mL for any single sample. Where thresholds have been exceeded, there should be recorded corrective actions that prevent or mitigate product contamination, including investigations, water retests, and if required, crop testing (E. coli O157:H7 and Salmonella - zero tolerance). Failure to take corrective actions, prevent or mitigate product contamination when there is evidence of high levels or an upward trend of E. coli may result in an automatic failure of the audit. For farms or indoor agriculture operations following the FDA's Produce Safety Rule, the operation needs to ensure they are meeting the requirements for samples to calculate the Geometric Mean (GM) and Statistical Threshold (STV). Reference: https://producesafetyalliance.cornell.edu/food-safety-modernization-act/produce-safety-rule/

2.09.04d (Open Flowing Surface Water)	No Change in v3.1	For generic E. coli (unless more stringent guidelines/laws in existence) <126MPN (or CFU)/100mL (rolling geometric mean n=5) and <235MPN (or CFU)/100mL for any single sample. Where thresholds have been exceeded, there should be recorded corrective actions that prevent or mitigate product contamination, including investigations, water retests, and if required, crop testing (E. coli O157:H7 and Salmonella - zero tolerance). Failure to take corrective actions, prevent or mitigate product contamination when there is evidence of high levels or an upward trend of E. coli may result in an automatic failure of the audit. For farms or indoor agriculture operations following the FDA's Produce Safety Rule, the operation needs to ensure they are meeting the requirements for samples to calculate the Geometric Mean (GM) and Statistical Threshold (STV).	For generic E. coli (unless more stringent guidelines/laws in existence) <126MPN (or CFU)/100mL (rolling geometric mean n=5) and <235MPN (or CFU)/100mL for any single sample. Where thresholds have been exceeded, there should be recorded corrective actions that prevent or mitigate product contamination, including investigations, water retests, and if required, crop testing (E. coli O157:H7 and Salmonella - zero tolerance). Failure to take corrective actions, prevent or mitigate product contamination when there is evidence of high levels or an upward trend of E. coli may result in an automatic failure of the audit. For farms or indoor agriculture operations following the FDA's Produce Safety Rule, the operation needs to ensure they are meeting the requirements for samples to calculate the Geometric Mean (GM) and Statistical Threshold (STV). Reference: https://producesafetyalliance.cornell.edu/food-safety-modernization-act/produce-safety-rule/
2.09.05d (Reclaimed Water)	No Change in v3.1	For generic E. coli (unless more stringent guidelines/laws in existence) <126MPN (or CFU)/100mL (rolling geometric mean n=5) and <235MPN (or CFU)/100mL for any single sample. Where thresholds have been exceeded, there should be recorded corrective actions that prevent or mitigate product contamination, including investigations, water retests, and if required, crop testing (E. coli O157:H7 and Salmonella - zero tolerance). Failure to take corrective actions, prevent or mitigate product contamination when there is evidence of high levels or an upward trend of E. coli may result in an automatic failure of the audit. For farms or indoor agriculture operations following the FDA's Produce Safety Rule, the operation needs to ensure they are meeting the requirements for samples to calculate the Geometric Mean (GM) and Statistical Threshold (STV).	For generic E. coli (unless more stringent guidelines/laws in existence) <126MPN (or CFU)/100mL (rolling geometric mean n=5) and <235MPN (or CFU)/100mL for any single sample. Where thresholds have been exceeded, there should be recorded corrective actions that prevent or mitigate product contamination, including investigations, water retests, and if required, crop testing (E. coli O157:H7 and Salmonella - zero tolerance). Failure to take corrective actions, prevent or mitigate product contamination when there is evidence of high levels or an upward trend of E. coli may result in an automatic failure of the audit. For farms or indoor agriculture operations following the FDA's Produce Safety Rule, the operation needs to ensure they are meeting the requirements for samples to calculate the Geometric Mean (GM) and Statistical Threshold (STV). Reference: https://producesafetyalliance.cornell.edu/food-safety-modernization-act/produce-safety-rule/

2.09.06d (Tail Water)	No Change in v3.1	For generic E. coli (unless more stringent guidelines/laws in existence) <126MPN (or CFU)/100mL (rolling geometric mean n=5) and <235MPN (or CFU)/100mL for any single sample. Where thresholds have been exceeded, there should be recorded corrective actions that prevent or mitigate product contamination, including investigations, water retests, and if required, crop testing (E. coli O157:H7 and Salmonella - zero tolerance). Failure to take corrective actions, prevent or mitigate product contamination when there is evidence of high levels or an upward trend of E. coli may result in an automatic failure of the audit. For farms or indoor agriculture operations following the FDA's Produce Safety Rule, the operation needs to ensure they are meeting the requirements for samples to calculate the Geometric Mean (GM) and Statistical Threshold (STV).	For generic E. coli (unless more stringent guidelines/laws in existence) <126MPN (or CFU)/100mL (rolling geometric mean n=5) and <235MPN (or CFU)/100mL for any single sample. Where thresholds have been exceeded, there should be recorded corrective actions that prevent or mitigate product contamination, including investigations, water retests, and if required, crop testing (E. coli O157:H7 and Salmonella - zero tolerance). Failure to take corrective actions, prevent or mitigate product contamination when there is evidence of high levels or an upward trend of E. coli may result in an automatic failure of the audit. For farms or indoor agriculture operations following the FDA's Produce Safety Rule, the operation needs to ensure they are meeting the requirements for samples to calculate the Geometric Mean (GM) and Statistical Threshold (STV). Reference: https://producesafetyalliance.cornell.edu/food-safety-modernization-act/produce-safety-rule/
Question not included in v3.0	**2.09.07:** Does the growing operation practice dryland farming? (Farm Module Only)	Information gathering question: This refers to crop production that relies only on direct rainfall.	Total Points: (0 points) Information gathering question: This refers to crop production that relies only on direct rainfall.
2.09.07	**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?	No Change in v3.1	There should be a documented assessment for each water source used in the growing area. 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. Farms and indoor agriculture operations following the CA or AZ LGMA, where the risk assessments suggest a need, surface waters passing within 400 feet (121 meters) of a CAFO with more than 80,000 head, must be treated to meet microbial acceptance criteria for Generic E.coli of negative or < detection limit (MPN or CFU/100mL) if used in any overhead irrigation application at the field level within two weeks of scheduled harvest.
2.09.08	**2.09.09:** Are there backflow prevention devices on all main lines, including where chemical, fertilizer and pesticide applications are made?	No Change in v3.1	No Change in v3.1

2.09.09	**2.09.10:** If the operation stores water (tank, cistern, container), is the storage container well maintained?	No Change in v3.1	No Change in v3.1

PESTICIDE USAGE			
Number	Question	Expectation	Interpretation Guideline
2.10.02	No Change in v3.1	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.	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.
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.**	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.**	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.**

2.10.04	**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.**	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. 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.	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. **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.**
2.10.05	**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.**	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/	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/