

US SPROUT INDUSTRY PRODUCTION BEST PRACTICES



The Best Practices covers the sourcing, production and distribution of sprouts, from the growing of the seed, the sprouting process, to the distribution and sale. It includes practices relevant to both organic and conventional production and sprouts grown on trays or in rotating drums (eg. alfalfa, broccoli, clover, radish), those grown in growth rooms in bins or beds (e.g., mung, onion, adzuki, lentils, garbanzo, peas, wheat berry). When shoots, microgreens or cress are grown and/or packaged within the sprouting facility (e.g., cress, wheat grass, sunflower, peas, buckwheat, daikon), they will also be subject to the conditions of this document. Those products grown and packaged in separate facilities may be audited with different criteria.

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1.	Food Safety Management			
1.1.	Management Responsibility			
1.1.1.	A food safety policy is in place.	The written policy outlines a commitment to food safety in general terms, how it is implemented and how it is communicated to personnel. It is signed by Senior Management.	Review the food safety policy; verify Senior Management signature (electronic signature is acceptable), and records of communication to all personnel in a manner that can be understood.	Operation creates or revises the policy, or its communication to personnel, to be in compliance.
1.1.2.	Management has designated individual(s) with roles and responsibilities for food safety functions.	The Food Safety Policy designates who has the responsibility and authority for food safety, including a provision for the absence of key personnel. Job descriptions for the identified individuals specify roles related to Food Safety, including keeping abreast of current regulations, a commitment to continual improvement of food safety practices and maintaining a culture of Food Safety among all personnel. Twenty-four-hour contact information is available for these individuals in case of food safety emergencies. These roles and responsibilities are communicated within the organization.	Review the Food Safety Policy and verify that it identifies individual(s) for key food safety activities, that their roles have been communicated within the organization and that the Food Safety Policy includes provisions for when the identified individual(s) are not present.	Operation creates or revises a Food Safety Policy that identifies individual(s) for key food safety activities in the Food Safety Plan, communicates their roles within the organization and identifies actions to be taken when the identified individual(s) are not present.
1.1.3.	There is an up-to-date organizational chart, which shows the line of command in the firm, names and contact information for the food safety management team and notification procedures personnel should follow in situations where an event occurs that may compromise food safety.	The food safety team is clearly identified on the organizational chart along with notification procedures personnel should follow in situations where an event occurs that may compromise food safety. The chart is maintained, posted in an accessible location, and personnel are referred to the chart in their training.	Review the chart and notification procedures. Verify that it is accessible to personnel and verify records of training	Operation creates or revises the chart and notification procedures and re-trains personnel.
1.1.4.	There is a disciplinary policy for food safety violations and	There is a policy that establishes corrective actions for personnel who violate	Review the policy and corrective action records	Operation creates or revises the policy, its

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	the policy is communicated to personnel.	established food safety policies or procedures. Violations and corrective actions are documented.	to verify the policy is implemented.	communication to personnel, and enforcement actions.
1.2.	Food Safety Plan			
1.2.1.	There is a written Food Safety Plan. The plan covers all locations and processes within the operation. The operation and products covered are described. Potential food safety hazards are identified, and preventive control procedures and their implementation are described.	The Food Safety Plan identifies all steps from receiving raw materials to shipping product, including all inputs, processes and locations of operation covered by the plan, biological, physical, chemical and allergen hazards reasonably likely to occur, and hazard control procedures. Process Flow diagram listing each step of the operation's processes from start to finish is included.	Review the Food Safety Plan and verify that the plan covers all locations and processes within the operation, considers potential biological, chemical and physical hazards, and identifies preventive controls for hazards that may reasonably affect food safety.	Operation creates or revises a Food Safety Plan for all locations and processes of the operation, including hazards reasonably likely to affect food safety and their control.
1.2.2.	The Food Safety Plan includes procedures for monitoring, verification, corrective actions, retraining and record keeping for all provisions in the Food Safety Plan.	The Food Safety Plan includes procedures for monitoring, verification, corrective actions, updated training and record keeping, for all provisions covered by the Food Safety Plan.	Review Food Safety Plan to verify procedures for monitoring, verification, corrective action, updated training and record keeping are included for all provisions in the plan.	Operation creates or revises their Food Safety Plan to include procedures for monitoring, verification, corrective actions, and record keeping for all Food Safety provisions.
1.2.3.	The Food Safety Plan is reviewed at least annually and whenever any changes in the operation occur that could affect the hazard analysis or alter the Food Safety Plan.	Operation reviews their Food Safety Plan at least annually. When changes are made to the operation, such as, but not limited to suppliers, processes, equipment or buildings, that could affect the Food Safety Plan, it is reviewed to ensure that any new risks are addressed; the plan is revised as necessary. Operation maintains records documenting that review has been conducted.	Review operation's procedures for review of Food Safety Plan and records to verify that a review has been conducted at least annually in accordance with procedures, current version is in use in operation.	Operation develops or revises and implements procedures for review of Food Safety Plan and develops recordkeeping procedures documenting review has been conducted.
1.3.	Documentation & Recordkeeping			
1.3.1.	Operation's Food Safety Plan includes supporting documentation demonstrating that it is	The Food Safety Plan includes procedures, standard operating procedures (SOPs) and policies for meeting each of the food safety requirements identified in the Food Safety	Review Food Safety Plan and verify that all required documentation is available, appears to	Operation develops and implements or revises procedures to develop and retain records for

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	being followed. Completed and/or revised plan is signed and dated.	Plan. Records verify that Food Safety Plan is followed and contains the actual values and observations obtained during monitoring. Information is entered at the time it is observed, signed by the observer and dated.	represent actual values entered, and is signed at the time of observation. all provisions covered in the Food Safety Plan in a timely manner.
1.3.2.	Documentation is available for inspection in a format that is accessible.	Operation defines in Food Safety Plan where and how documentation is maintained. Documents and records may be maintained on-site or at an off-site location, or accessible electronically (e.g., SDS), and are available for inspection in a reasonable timeframe, Records stored off site are available within 24 hours.	Review record keeping system and verify that required documentation, stored off site, can be accessed within 24 hours. Operation revises Food Safety Plan to include where and how documentation is maintained and 24-hour retrieval time for records stored off site.
1.3.3.	Documentation is retained for a minimum period of two years.	Document handling policies and procedures include provisions for retaining documentation required by the Food Safety Plan for a minimum of two years.	Review document handling procedures and verify that required documentation is available for at least two years. Operation develops and implements, or revises, document handling policies and procedures.
1.3.4.	Records are up to date.	Operation develops and implements procedures for recording of activities and time frames for completion of verification activities. Operation uses current version of all forms and records. Operation provides records documenting the current day's activities.	Review records and verify that operation has and implements appropriate procedures for record keeping using current forms and that documentation is up to date. Operation develops and implements or revises procedures for timely completion of documents; uses current versions of forms.
1.3.5.	Records are legible, accurate, correct and truthful.	Operation develops and implements procedures for record keeping including appropriate training for personnel responsible for taking readings, checking electronic readings or maintaining records. Records are completed in ink. Errors are corrected by placing a line through the incorrect entry and personnel initial and date the corrected entry. Records are legible.	Review records for accuracy and truthfulness; confirm that any changes in records are done correctly and that there are no signs of falsification. Review training program and records of training for personnel maintaining records. Interview personnel and observe Operation develops and implements or revises procedures to ensure records are accurate and personnel are properly trained to record readings and correct entries properly.

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		Documents and records are executed truthfully and correctly.	personnel recording measurements to verify the records are accurate and made in accordance with company policies.
1.3.6.	All required documentation shall include name and location of operation, actual values and observations obtained during monitoring, and date and time of activity performed. § 112.161	Records of possible seed contamination, cleaning and sanitizing, environmental monitoring, irrigation water sampling and testing, and related corrective actions must be reviewed, dated and signed within a reasonable time after the records are made, by a supervisor or responsible party.	Review required documentation for timely review date and signature (or initials) of supervisor or responsible party. Operation develops and implements or revises procedures to ensure records are reviewed, signed and dated by a supervisor or responsible party.
1.4.	Traceability		
1.4.1.	A documented traceability program is established.	Operation has a documented traceability program that includes records enabling reconciliation of product delivered to recipients (one step forward). (May exclude direct sales to individual consumers.) Records include sufficient information to link sprouts with the specific lot number of the seeds used, and other food contact supplies and raw materials (one step backward). Records include the items and date of receipt, lot numbers, quantities, source of the product, and transporter. Additional information may be included. Contents and retention of records are consistent with applicable regulations. Procedures for corrective actions are in place if the trace back or trace forward exercises are not successful.	Review traceability program and verify operation's ability to accurately trace product one step forward and one step back. Operation develops and implements or revises their traceability program.
1.4.2.	A trace back and trace forward exercise is performed at least annually to ensure procedures for product tracing are effective; procedures are modified as needed.	The trace back and trace forward exercise achieves accurate traceability within 4 hr or as required by prevailing regulations. Product tracing exercise achieves 100% reconciliation of relevant inputs to their source and of product to recipients. Corrective actions are documented and	Review records of most recent trace back exercise to verify that trace back to the supplier and trace forward to the recipient were successful. If exercise was not successful, review records of corrective actions to Operation develops and implements or revises traceability exercise to ensure procedures for product tracing achieve accurate reconciliation. Operation modifies product tracing procedures based on

Requirement	Procedure	Verification	Corrective Action	
		procedures are modified if the trace back or trace forward exercises are not successful.	ensure product-tracing procedures were modified as needed. If no product tracing exercise was performed in the past year, the operation will perform the exercise during the audit.	outcome of product tracing exercise.
1.5.	Control of Physical Hazards			
1.5.1.	Operation has a written procedure to control physical hazards such as metal, wood, glass, brittle plastic and any other physical hazards from contaminating products, and a written corrective action plan for when an incident is detected.	The establishment develops procedures to control physical hazards. This may include use of foreign material detection devices, such as metal detectors. If detection devices are not used, a risk analysis and adequate control programs, such as elimination of likely contamination points, only essential metal, wood, glass, plastic and other potential physical contaminants are present in the food production and storage areas and in product pathways, and/or inspection of possible sources of contamination, must be in place, for example: <ul style="list-style-type: none"> a. Light bulb protectors, safety type materials in windows, mirrors, skylights, lights and other fixtures. b. Glass, brittle plastic and other physical contaminants registry, inspection and records policies c. Knife registry, sign-in and sign-out inspection and records d. Peeling paint, rust, loose nuts and bolts inspection, repair and record keeping 	Review procedures and records of controls, including device maintenance if applicable. Inspect operation for possible sources of contamination. Review registries, records of inspection and detection programs. Review corrective action plan and corrective actions taken.	Operation develops and implements or revises written procedures for controlling physical hazards, and/or corrective action plan; and trains or re-trains employees.
1.6.	Sampling and Testing Programs			
1.6.1	Where laboratory analysis is required in the operation's Food Safety Plan, operation has written procedures for appropriate sampling,	Operation establishes sampling and testing programs for each type of test required in the Food Safety Plan. Operation has written procedures for sample collection appropriate for the test performed,	Review operation's procedures to verify sampling, testing procedures, test result evaluation, corrective	Operation develops and implements or revises procedures for appropriate sampling, testing procedures, test

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	testing methods, evaluating test results, corrective action and documentation.	frequency of test, analytical method used, result evaluation and interpretation, follow-up actions based on test results, and documentation.	action and documentation procedures are consistent with the requirements of Produce Safety Rule. result evaluation, corrective action and documentation procedures consistent with the Produce Safety Rule. Operation trains or re-trains employees.
1.6.2	Where laboratory analysis is required in the operation's Food Safety Plan, operation has written procedures for laboratory qualifications.	<p>Operation establishes criteria for choosing laboratories which may include whether:</p> <ul style="list-style-type: none"> a. the laboratory is certificated (for tests performed) by ISO 17025, American Association for Laboratory Accreditation (A2LA) or other equivalent recognized certification system. b. the laboratory participates in the American Proficiency Institute "check sample program" or similarly recognized program. c. the laboratory is staffed by personnel with training and experience in microbiological analysis techniques. d. the laboratory utilizes BAM (Biological Analysis Manual), AOAC International (standard developing & method validation organization) or testing methods that have been validated for detecting or quantifying the target organism(s) or chemical(s). e. when in-house testing is used, the laboratory is certified by a recognized certifying body and technician has documented training to perform the specified tests. 	<p>Review operation's procedures to verify that laboratories have been certified by recognized certification system or participate in a Proficiency Testing program and that laboratories utilize BAM, AOAC International or testing methods that have been validated for detecting or quantifying the target organism(s) or chemical(s). In-house technician has documentation of training.</p> <p>Operation develops and implements or revises procedures for selecting laboratories and discontinues using any laboratory or testing methods that do not meet established criteria.</p>
1.6.3	Where microbiological analysis is required in the operation's Food Safety Plan, operation has written procedures for sampling	Operation utilizes a written sampling protocol when collecting samples for microbiological testing.	<p>Review Food Safety Plan and sampling protocol(s); verify that the operation has an aseptic sampling protocol for each type of</p> <p>Operation develops or obtains written sampling protocols for each type of microbiological testing</p>

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	taken in accordance with an established aseptic sampling procedure.		microbiological testing required in the operation's Food Safety Plan.
1.6.4	All tests performed, their results and actions taken are documented.	Test results and actions taken for all testing required in the operation's Food Safety Plan are documented and the records maintained for two years.	Review operation's records of test results and actions taken.
1.6.5	Operation has procedures for all required testing including test procedures and actions to be taken based on the results. Records are maintained according to local, state or federal guidelines for results requiring a recall.	For all testing required by the Food Safety Plan, operation has a written testing procedure that includes test frequency, sampling, test methods and procedures, responsibilities and actions to be taken based on results.	Review the operation's testing procedures, records and follow-up actions for completeness.
1.7.	Recall		
1.7.1.	A documented recall program, including written procedures and a designated recall team, is established and tested at least annually to ensure procedures for product recall are effective; procedures are modified as needed.	The recall program and procedures include a designated recall team. Operation performs a mock recall exercise at least annually. The mock recall includes the trace back and trace forward exercise and is completed as stated in the operation's recall program and in compliance with applicable regulations. Procedures for corrective actions are in place if the recall exercise is not successful.	Review records of most recent mock recall performed at the operation to verify that all product was accounted for in the recall test. If exercise was not successful, review records of corrective actions to ensure procedures were modified as needed.
1.8.	Self-Audits		
1.8.1.	Operation has written procedures for conducting self-audits. Operation documents the outcome of the audit and any corrective actions taken.	An assigned individual, who is knowledgeable in food safety and U.S. Sprout Industry Production Best Practices, conducts internal audits of each of the elements of the Food Safety Plan at least annually, (this document may be utilized to assist in the internal audits). The outcome of the audits and any required corrective actions are documented.	Review internal audit procedures and examine records for evidence of compliance.

Requirement

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2.	Supplier Program (Raw Material Sourcing)			
2.1.	<p>Operation has an Approved Supplier program for all incoming materials, including packaging, seed and growing media, if used. Packing materials are new (or cleaned and sanitized if reusable). Operation has procedures/provisions to review and verify accuracy and completeness of supplier documents. Operation develops procedures for acceptance of materials from suppliers not on the approved list and documents implementation of their plan.</p>	<p>Operation has and maintains a current list of approved raw material suppliers and specifications. As needed and available, the program includes the following:</p> <ol style="list-style-type: none"> A current written list of all incoming materials that could affect finished product safety, including seeds and other materials. A documented procedure for approving suppliers, including verification from suppliers of their use of suitable and legal materials (such as a COA for FDA approved food contact materials) for all food contact packaging, tools and equipment. Effective systems to prevent the receipt and use of contaminated, damaged or defective containers (e.g., receiving and storage controls, visual examination prior to use). A documented procedure for accepting materials from alternate, non-preapproved suppliers. A documented procedure for examining each lot of seed, growing media, if used, and packaging material for physical damage, signs of contamination (e.g., stains, bird droppings, insects) and foreign material at receiving and recording on a receiving log. 	<p>Review the Approved Supplier program to verify that it includes a current list of approved suppliers, COAs and specifications along with procedures for acceptance of materials from suppliers not on the approved list. Review documentation, including receiving logs, to verify that each lot of seed, growing, media, if used, and packaging material is examined for physical damage, signs of contamination (e.g., stains, bird droppings, insects and foreign material) at receiving. And that all materials received, including from alternate sources, have followed established procedure.</p>	<p>Operation develops or revises and implements an Approved Supplier program for all incoming materials that could affect finished product safety, including seeds and other materials. Operation develops or revises their current list of approved suppliers and develops or revises their procedure for accepting materials from alternate sources, along with procedures for verifying materials received meet their food safety specifications. Operation ceases accepting materials from non-compliant suppliers.</p>
2.2.	<p>Operation has a written procedure and a receiving log for receiving raw food contact materials and seeds and inspecting the security and cleanliness of the transport vehicle.</p>	<p>The procedure includes entering pertinent information in the receiving log and a visual inspection of the transport vehicle, that vehicle is free of grime and odors, that materials and/or seed packaging is intact and clean, free of signs of rodent contamination (i.e. examination for urine with a black light) and includes procedures</p>	<p>Review the receiving procedure, product receiving log transport vehicle inspection records and corrective action procedure.</p>	<p>Operation develops and implements or revises their procedures for receiving and logging raw food contact materials and seeds, inspection of transport vehicle and corrective</p>

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		for corrective action if the product or vehicle fails inspection.	actions in case of a failure.	
2.3	Operation has documentation from each of its seed suppliers that the seed they are buying for sale to sprout operations is appropriate for human consumption.	The operation has a letter from each of its seed suppliers stating that they are requesting conformance with FDA GAPs or Codex Primary Production Code of Practice for the growing and harvesting of seed for sprouting and are expecting their seed growers to attain these standards, and that seed have been conditioned and held at the farm in a manner that minimizes the likelihood that the seed will be contaminated with human pathogens.	Review operation's records and documentation from seed supplier(s) and verify that operation has records confirming that seed supplier is sourcing seed in compliance with the operation's policy.	Operation obtains required documentation. Operation ceases accepting product from non-approved suppliers, until sufficient documentation demonstrating compliance is received by the operation.
2.4	Operation has confirmation that each seed supplier has a documented risk-based food safety program that meets the requirements of this document, and that any and all conditions and handling practices related to the seeds meet the sanitary requirements of this document, to minimize potential for adulteration of the seeds.	The operation has verification from each of its seed suppliers that they have implemented a written risk-based Food Safety Plan. The plan meets the requirements of the Best Practices, including: <ul style="list-style-type: none"> a. Documented procedures to ensure that any and all activities they perform with seed, are conducted under sanitary practices and conditions, b. Sampling and testing every lot of seed, and c. Scheduling or obtaining a current annual food safety and sanitation 3rd party audit that verifies that all of these procedures are done under sanitary practices and conditions and in accordance with applicable regulations, including trace back to the seed growers and processors. 	Review documentation to verify that operation has records indicating that each seed supplier has implemented a written risk-based Food Safety Plan and has or has scheduled a current third-party audit consistent with the requirements of this document.	Operation develops and implements or revises their requirements for seed suppliers to provide documentation confirming implementation of a risk-based food safety program, including seed testing, and a third-party audit, consistent with the requirements of this document.
2.5	Operation has documentation of seed testing results for <i>Salmonella</i> and <i>E. coli</i> O157:H7 for every seed lot/delivery date. The	Operation develops and implements procedures and record keeping that document seed sampling and testing for <i>Salmonella</i> and <i>E. coli</i> O157:H7 for every lot of seed. Test results are within program limits. Verification may be COA from	Review records to verify that operation has documentation confirming test results for <i>Salmonella</i> and <i>E. coli</i> O157:H7 for every seed lot/delivery	Operation develops and implements or revises procedures and record keeping ensuring each incoming lot of seed has been tested for

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	operation requests documentation from its suppliers or performs its own seed sampling and testing.	supplier or test results. Operation has procedures for segregating incoming seed from other seed lots pending seed test results if necessary.	date in compliance with the operation's policy and procedures. Verify that operation has procedures for segregating incoming seed from other seed lots pending seed test results if necessary.	<i>Salmonella</i> and <i>E. coli</i> O157:H7. Operation obtains required documentation. Operation ceases accepting product from non-approved suppliers, until documentation demonstrating compliance is received.
2.6	If operation uses soil or other growing media to grow sprouts (or any other product in their operation) it has a written plan for safe production procedures to ensure that the medium does not serve as a source of contamination of sprouts or the surrounding area. § 112.51 (b) and (c), and 112.52	The written plan to control the use of growing media includes the following, as necessary and appropriate: a. Operation purchases growing media that has been fully composted or otherwise treated using a documented procedure shown to reduce pathogens to a non-detectable level for <i>Salmonella</i> , <i>Listeria monocytogenes</i> , and <i>E. coli</i> O157:H7 and documents the monitoring of the procedure, or b. Operation produces own growing medium that is composted or otherwise treated according to accepted procedures for reducing or eliminating pathogens. c. Operation has a sampling and testing procedure for each lot of growing media to verify the effectiveness of the above production procedures. d. If the soil medium is or contains a biological soil amendment of animal origin (i.e. Manure) it must be handled and used according to the requirements of § 112.51 and § 112.52	Review operation's written plan and documentation to verify that growing medium, whether purchased or produced by the operation has been properly composted or otherwise treated according to accepted procedures for reducing or eliminating pathogens.	Operation develops and implements or revises procedures and record keeping that ensures the use of acceptable growing media.
2.7	Operation ensures that growing media does not become a source of	Operation implements measures to ensure media, and sprouts grown in media, do not serve as a source of contamination to water grown sprouts or the areas used to grow or	Review operation's written program to ensure measures have been implemented to prevent	Operation develops and implements or revises procedures and record keeping to prevent

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contamination for product or the production areas.	package water grown sprouts, including measures to prevent cross contamination of growing areas through the movement of workers or equipment.	cross contamination from growing media.	cross contamination of water grown sprouts from media grown sprouts.

3.	Sprout Production Buildings & Equipment			
3.1.	Water & Ice			
3.1.1.	Operation has SOPs to ensure the microbial quality of water or ice that directly contacts the sprouts or is used on food-contact surfaces meets the microbial standards spelled out in § 112.151. When water does not meet requirements, Operation has procedures for corrective actions and evaluation of any affected product.	Operation's water use SOP ensures that incoming water or ice used on sprouts or on food-contact surfaces, meets the microbial standards for agricultural water, as defined by prevailing regulation.-Water may be treated (e.g., with chlorine) to achieve the microbial standards. Operation maintains records verifying water quality is within requirements stated above, including testing records and corrective actions taken.	Review operation's policy and other records (e.g., water test results, corrective actions, product disposition) regarding microbial quality of water, and ice if used, to verify that water contacting sprouts or food contact surfaces meets the microbial standards for agricultural water as defined in § 112.151 or prevailing regulation.	Operation develops and implements or revises its procedures to ensure the microbial quality of water or ice. Operation discontinues using water that does not meet the microbial standards of agricultural water or prevailing regulation. Affected product is evaluated for potential contamination and disposition.
3.1.2.	Operation maintains an up to date description of the water system.	Water sources and the operations they serve are documented and current. The description may include one or more of the following: maps, photographs, drawings (hand drawings are acceptable) or other means to communicate the location of water source(s), permanent fixtures and the flow of the water system (including holding systems, reservoirs or any water captured for re-use). The location of permanent fixtures including wells, valves, returns, backflow prevention and other above ground features that make up a complete water distribution system is clearly documented.	Review water system description or map, and verify accuracy during operation inspection.	Operation develops or revises the water system description or map.

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3.1.3.	Scheduled assessments of water system, including delivery equipment, are performed to ensure that it is of adequate size and design and installed and maintained so as not to serve as a source of contamination. Municipalities may require assessments for backflow devices by an outside certifier. Water system assessments are documented.	The water-delivery system is of adequate size and design and installed and maintained so as not to serve as a source of contamination of sprouts, water supplies, or equipment with pathogens, or to create an unsanitary condition. Water installations and equipment are constructed and maintained to prevent backflow and cross connections between product contact water and waste water systems. Routine checks verify that backflow prevention units are functioning properly (annual or as needed to maintain continuous protection). Results are documented.	Review records of scheduled assessments and supporting maintenance, and examine water system for compliance with water system maintenance program, including any outside certification (as may be required by municipalities) for backflow devices backflow prevention and cross-connections.	Operation schedules water system assessments; if needed, corrects deficiencies in ability of water system to reliably distribute safe water. Affected product is evaluated for potential contamination and disposition.
3.1.4.	The sewage disposal system is adequate for the operation and maintained to prevent direct or indirect product contamination.	The human waste, gray and sprout production water sewage systems have sufficient capacity to handle the operation's peak flows and not cause direct or indirect product contamination. Food Safety plan has procedures for maintaining the system and correcting any failures to the system, including evaluation of affected product for potential contamination and disposition.	Observe operation for evidence of compliance.	Operation suspends affected processes until sewage disposal system is fixed and functions at capacity so as to prevent risk of product contamination. Affected product and product handling areas are evaluated for potential contamination and disposition.
3.1.5.	Water-change schedules, procedures and documentation are developed for all uses of water where water is re-used or re-circulated such as for flume transport or for washing or cooling multiple batches of sprouts.	Operation has procedures, schedules and documentation for changing water that is re-used, such as re-circulated water for washing multiple batches of sprouts, to maintain its safety and adequate sanitary quality and minimize the potential for contamination of sprouts.	Review records and observe water use practices to verify there are procedures and schedules for changing water in all uses where water is reused; review records for evidence of compliance with the procedures.	Operation develops and implements or revises water re-use procedures. Affected product is evaluated for potential contamination and disposition.
3.1.6.	Operation has written procedures for managing the microbial quality of reused	Operation has documentation demonstrating that their chemical treatment or other procedure for treating	Review documentation and observe management practices	Operation establishes and implements or revises written

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	<p>or re-circulated water that contacts sprouts or food contact surfaces using an approved antimicrobial process, chemical treatment, or other effective procedure to ensure water is safe and of adequate sanitary quality to prevent cross contamination during its use.</p>	<p>re-used or re-circulated water that contacts food or food contact surfaces is approved for its intended use.</p> <p>Operation has documentation demonstrating that their chemical treatment is adequate to insure the water is safe and of adequate sanitary quality to prevent cross-contamination and is approved for its intended use.</p>	<p>for reused or re-circulated water to verify compliance with operation's established procedure and any applicable regulations.</p>	<p>procedures for managing microbial quality of reused or re-circulated water or obtains appropriate documentation; suspends use of reused or re-circulated water until deficiencies are corrected and water treatment is in compliance with operation's established procedure and applicable regulation. Affected product is evaluated for potential contamination and disposition.</p>
3.1.7.	<p>Operation has written procedures for monitoring the parameters that are critical for ensuring the efficacy of antimicrobial chemicals or other treatment procedure that may be used. Controls and monitoring are documented.</p>	<p>If water treatment chemicals are used, operation has a procedure to monitor and ensure antimicrobial levels are maintained at appropriate levels to maintain microbial water quality and prevent cross contamination. As appropriate, procedures may include: minimum and maximum limits for antimicrobials and how to control, monitor and record use of antimicrobials as needed to assure compliance with written procedures. Microbial, physical or chemical monitoring is performed, as appropriate to the specific operation; to demonstrate that acceptance criteria have been met. Operation has a procedure for corrective actions taken if criteria are not met. Controls and corrective actions are documented.</p>	<p>Review operational procedures for monitoring and maintaining the efficacy of water antimicrobial or treatment, if used, and for corrective action when criteria are not met.</p> <p>Review monitoring and corrective action records for compliance with the operation's established procedure and acceptance criteria.</p>	<p>Operation develops and implements or revises monitoring program that assures continuous control of water antimicrobial treatment to meet acceptance criteria. Deficiencies are corrected. Affected product is evaluated for potential contamination and disposition.</p>
3.1.8.	<p>Operation has written procedures for routine calibration and verification of all instruments used to</p>	<p>Records are kept for all monitoring and calibration systems. If automatic systems are used, an independent measurement is used to verify that the automatic device is</p>	<p>Review calibration and verification procedures and records, and observe personnel</p>	<p>Operation develops and implements, or revises documents and implements calibration</p>

Requirement	Procedure	Verification	Corrective Action
	measure factors important to water quality such as: temperature, pH, and antimicrobial levels. Instruments are calibrated at a frequency sufficient to assure continuous accuracy; instrument calibration is documented.	working properly. Test methods or test strips used to monitor requirements are appropriate to their use and sufficiently sensitive to their intended purpose.	conducting a calibration or a verification procedure to verify that procedures comply with operation's calibration program and the requirements of this document. and verification procedures and record keeping. Operation trains or re-trains personnel assigned to conduct calibration or verification activities.
3.2.	Building & Equipment		
3.2.1.	Growing, harvesting, packing, and holding of sprouts must be conducted in a fully enclosed building. Operation has a floor plan describing all areas of the operation and the flow of the product and personnel through the operation.	The floor plan contains a layout of all buildings that are a part of the operation, the functions of the rooms and the flow of product and processes within the operation, from receipt of incoming materials through output of finished product.	Review floor plan to see where each of the functions are located and the flow patterns of incoming and outgoing products. Operation creates or revises their floor plan.
3.2.2.	Building(s) and equipment are designed, constructed and maintained in a manner that facilitates cleaning and sanitation and prevents contamination of sprouts during growing, packaging and cooling. § 112.126	Buildings and equipment meet the following criteria: a. Structures and surfaces (floors, drains, walls, ceilings, doors, frames, hatches, etc.) are designed and constructed in a manner that facilitates cleaning and sanitation and does not serve as harborage for contaminants or pests. b. Storage, seed sanitization, germination and packaging areas are separated from each other or the potential for cross contamination between them has been otherwise adequately addressed. c. Chill and cold storage loading dock areas are appropriately sealed, drained and graded. d. Fixtures, ducts, pipes and overhead structures are installed and maintained so that drips and condensate do not contaminate product, raw materials or food contact surfaces.	Observe building and verify that building and equipment are designed, constructed in a manner that facilitates cleaning and sanitation, and maintained in a manner that prevents contamination of sprouts during growing, packaging and cooling, consistent with the requirements of this document. Building and equipment deficiencies are corrected. Affected product is evaluated for potential contamination and disposition.

Requirement	Procedure	Verification	Corrective Action	
		<p>e. Water from refrigeration drip pans is drained and disposed of away from product and product contact surfaces. Drip pans and drains are designed to assure condensates do not become a source of contamination.</p> <p>f. Air intakes are designed to be adequately maintained and cleaned, equipped with close-fitting screens or filters and not be located near potential sources of contamination.</p> <p>g. Include provisions for recordkeeping when: Affected product is evaluated for potential contamination and disposition.</p>		
3.2.3.	<p>Operation has written policy and controls in place to prevent contaminants from entering the sprouting production areas.</p>	<p>There is a written policy for preventive controls to prevent contaminants from entering the sprouting production areas by human activity, or vehicular traffic. Control methods may include: use of dedicated footwear or equipment, disposable foot coverings or use of sanitizing chemicals in floor foamers, footbaths or hand dip stations. Where sanitizers are employed, the policy includes procedures for documented monitoring of sanitizing agent (including frequency and concentration) to maintain chemicals at appropriate levels. The procedures also specify corrective actions that will be taken if there is a failure of preventive measures. Corrective actions are documented.</p>	<p>Review policy and observe the method(s) of preventing contaminants from being carried into production areas by human activity or vehicular traffic. Review floor foamer/hand dip and foot bath records. Assess the effectiveness of the operations' policy and controls by reviewing records from monitoring procedures and corrective actions.</p>	<p>Operation develops and implements or revises the written procedures to control contaminants getting into production area from outside the operation.</p>
3.2.4.	<p>Operation has written procedures to ensure catwalks above product zones are protected to prevent product or packaging contamination.</p>	<p>Where catwalks are installed over product zones, they are constructed of solid surface materials or have catch trays installed, are protected by kick plates, product covers or other barriers. Personnel do not walk over unprotected zones.</p>	<p>Observe installation and location of catwalks over product zones for evidence of protective measures and observe personnel practices for compliance.</p>	<p>Operation retrofits catwalks over product zones to protect against potential contamination. Affected product is evaluated for potential contamination and disposition.</p>

Requirement	Procedure	Verification	Corrective Action
3.2.5.	Operation has written procedures to maintain adequate lighting in all areas.	Lighting in all areas is sufficient to enable cleaning, sanitation, repairs, etc.	Observe, directly or by other evidence that sufficient lighting is provided to the worker to clearly see the task being performed.
3.2.6.	Where temperature control is required for sprout safety, operation establishes written procedures for monitoring the temperatures. Temperature should be maintained per sprout requirements. Temperature monitoring equipment must be accurate and precise and adequately maintained and calibrated. § 122.124.	Operation develops written procedures that identify the acceptable temperature range and the method for monitoring the temperature. Temperature monitoring equipment is located in all temperature-controlled areas and is located so as to accurately monitor the temperature. Temperatures are kept appropriate to sprouts. Monitoring records are maintained and policies for actions taken if temperatures are out of range. Temperature devices are calibrated in accordance with manufacturer's instructions and employees are trained in calibration. Training is documented.	Review procedures and records of calibration and monitoring to ensure procedures are followed as written. Review records of training and corrective actions if temperatures are out of range.
3.3.	Equipment and Tools		
3.3.1.	If foreign material control devices, such as metal detectors and other methods of foreign material detection, (including visual checks for foreign material) are used, operation has a written maintenance and inspection schedule to ensure effective operation, employee training to perform checks and documentation of checks performed. A written action plan is in place for when detection fails. § 112.124	Foreign material control devices are included as part of a Preventive Maintenance Schedule or other program and maintained to ensure effective operation. Calibration checks are performed according to written procedures or manufacturer's recommendations and rejection system is checked for proper functioning.	Inspect any foreign material control devices and review monitoring, maintenance and calibration records to verify compliance with operation's Food Safety Plan and the requirements of this document. Review records for training, retraining or corrective actions and product disposition.
3.3.2.	Operation has written procedures for the proper	Equipment, utensils and tools, including for food contact and non-food contact uses,	Review practices or procedures for use and

Requirement	Procedure	Verification	Corrective Action	
	use and storage of all equipment, utensils and tools. Cleaning equipment and tools are clean, in working order and stored properly away from product handling areas.	are maintained in a manner sufficient to avoid becoming a source of product contamination. Tools are identified (such as color coding by use) in a manner to prevent misuse and possible cross contamination of product.	storage of equipment, tools and utensils, and observe usage and storage areas for compliance. Observe personnel to ensure they are following written procedures for use and storage of equipment.	written procedures for maintaining and storing equipment, tools and utensils. Retraining is performed and documented. Affected product is evaluated for potential contamination and disposition.
3.3.3.	Operation has written procedures to ensure all food contact equipment, tools and utensils are designed and made of materials that are easily cleaned and maintained.	The operation develops written procedures for purchase, repair or maintenance of food contact equipment, tools and utensils. When food contact containers are used as utensils, they should be appropriately marked, and written procedures developed for their use and sanitization.	Observe food contact surfaces for design and materials that can be easily cleaned and maintained. Observe any purchasing specifications for equipment, tools or utensils.	Operation develops and implements or revises procedures. Operation repairs or replaces all non-compliant food contact equipment, tools and utensils.
3.3.4.	Food Contact containers may not be used to hold non-food items unless clearly and permanently labeled "Not for Food"	Operation has procedures in place to prevent the use food contact containers to hold non-food items.	Review procedures and observe for unapproved use of food contact containers.	Operation develops and implements or revises procedures and all containers for non-food items are labeled "Not for Food".
3.3.5.	Operation ensures equipment is installed in a way that provides access for cleaning.	Sprout washing, packing and other food contact equipment is installed away from walls and ceilings and/or otherwise positioned so as not to inhibit access for proper cleaning.	Observe position and location of all food contact equipment for compliance.	Operation relocates the equipment to be compliant.
3.3.6.	Operation has written procedures to maintain transporting equipment to prevent contamination of products being transported.	Pallet jacks, carts, trolleys and forklifts, are maintained to prevent contamination of products being transported and are listed on the Preventive Maintenance and/or Master Cleaning Schedules. Truck cooling is maintained and monitored.	Observe transporting equipment and review Schedules and records for evidence of compliance.	Operation develops and implements or revises Preventive Maintenance and/or Master Cleaning Schedules for transporting equipment.
3.4.	Leaks/Lubrication			
3.4.1.	Operation has policy to manage equipment lubrication so as not to contaminate food products.	Only food-grade lubricants are used on food processing and packaging equipment, or on any other equipment where incidental food contact may occur. Food	Review lubricant labels for compliance and observe equipment to verify that catch pans or	Operation develops and implements or revises policy; replaces non-food grade lubricants, fixes

Requirement	Procedure	Verification	Corrective Action
	Personnel are trained to report lubricant leaks.	grade and non-food grade lubricants are stored in separate locations. Lubricant leaks are fixed or catch pans are installed to prevent product contamination.	other means are in place to prevent contamination to the food. lubricant leaks or installs catch pans. Retraining is performed and documented. Affected product is evaluated for potential contamination and disposition.
3.5.	Temporary Repairs		
3.5.1.	Operation has a written policy to insure temporary repairs on food contact surfaces are documented and constructed of food-grade material. Operation has a procedure to ensure that permanent repairs are implemented in a timely manner.	Operation has a written policy to insure temporary repairs on food contact surfaces are documented and constructed of food-grade material. Operation has a procedure to ensure that permanent repairs are implemented in a timely manner.	Review operation's policy on temporary repairs. Review records for evidence of compliance. Operation has a written policy that temporary repairs on food contact surfaces are documented and constructed of food-grade material. Operation has a procedure to ensure that permanent repairs are implemented in a timely manner.
4.	Worker Health and Hygiene		
4.1.	Worker Health and Hygiene Policy		
4.1.1	Operation has procedures to ensure personnel and visitors who show signs of communicable illness are restricted from direct contact with sprouts or food-contact surfaces.	Operation has procedures to restrict personnel: contractors, visitors, buyers, product inspectors, auditors, and other personnel who show signs of illness (e.g., vomiting, jaundice, diarrhea) from contact with product or food contact surfaces.	Review policy and training records and observe personnel for evidence of compliance. Interview personnel, including supervisors, for understanding and implementation of policies. Operation develops or revises and implements policy. Retraining is performed and documented.
4.1.2	Operation has procedures to ensure personnel with exposed cuts, sores or lesions are restricted from direct contact with sprouts or food-contact surfaces.	Operation has procedures restricting personnel with cuts, sores or lesions from direct contact with sprouts or food-contact surfaces. Minor cuts or abrasions on exposed parts of the body are acceptable if covered with a non-permeable covering, bandage or glove. Bandages on hands are covered with gloves in compliance with operation's glove policy.	Review policy and observe personnel for evidence of compliance. Review records for training and product evaluation and disposition if any. Operation develops or revises and implements policy. Retraining is performed and documented.

Requirement	Procedure	Verification	Corrective Action	
4.1.3	Operation ensures first aid kits are accessible to all personnel.	First Aid kits are readily available and are maintained in accordance with prevailing regulation. The kit materials are within shelf life and kept in a sanitary and usable condition.	Observe that the first aid kit is readily accessible and is stocked in accordance with prevailing regulation.	Operation obtains and stocks a first aid kit and ensures it is readily accessible to personnel.
4.1.4	Operation requires personnel and visitors to follow all personal health and hygiene practices as designated by the operation. Policy shall be posted at the entrance to operation and all visitors must sign in and acknowledge that they have read and understand the policy.	Operation has procedures to ensure health and hygiene policies are appropriately communicated and apply to all personnel: contractors, visitors, buyers, product inspectors, auditors, and other personnel in the production areas. Operation designates competent supervisory personnel to ensure compliance with the requirements in this section.	Review policy, check sign in policy and forms and observe personnel and visitors in operation for evidence of compliance.	Operation develops or revises health and hygiene policies and procedures and documents training, retraining.
4.2.	Toilets and Hand Washing			
4.2.1.	Toilet and hand washing areas are designed, constructed, and located in a manner that minimizes the potential risk for sprout contamination.	Toilet and hand washing areas are designed and constructed in a manner that minimizes the potential risk for product contamination, located away from sprout handling areas, and are cleaned and repaired as needed.	Observe that toilet and hand washing areas are designed, constructed, and located in a manner that minimizes the potential risk for sprout contamination. Verify that they are maintained in good condition.	Toilet and hand washing equipment and rooms are repaired, cleaned or repositioned to be compliant.
4.2.2.	Toilets and hand washing stations are of adequate number, easily accessible to personnel and visitors and in compliance with applicable regulation.	The operation ensures that the number of toilets and hand washing stations and their location relative to personnel and visitors meets the more stringent of federal, state or local regulations.	Verify that the number of available toilets and hand washing stations and their location is compliant with prevailing regulation for the number of personnel.	Operation installs a sufficient number of easily accessible toilets and hand washing stations in appropriate locations to be compliant.
4.2.3.	Operation has procedure to ensure disposing of used toilet tissue on the floor, in trash receptacles, or anywhere other than the toilet, is prohibited.	Operation provides documented training to personnel that used toilet tissue is only disposed of in the toilet.	Review training documentation and observe restrooms for evidence of compliance.	Operation conducts and documents retraining.

Requirement	Procedure	Verification	Corrective Action
4.2.4.	Operation has written procedures to maintain toilets and hand wash stations in a clean and sanitary condition.	Toilet paper is available in toilet facilities. Restrooms include hand wash stations with water that meets the microbial standard for sanitary water, hand soap, disposable towels or other hand-drying device, and towel disposal container. Greywater is plumbed or captured for disposal.	Observe toilets and hand washing stations for compliance. Operation replaces, repairs or maintains toilets and/or hand washing stations to be compliant.
4.2.5.	Operation installs signage in appropriate languages requiring hand washing.	Operation posts signage in applicable languages and/or pictures to remind personnel to wash their hands after each toilet visit.	Observe that signage is present in appropriate locations and is in appropriate language or pictures to clearly communicate requirements to all personnel. Operation obtains and posts signage to be compliant.
4.2.6.	Operation has a policy for hand washing that spells out when and how to wash hands.	<p>Operation develops policy and procedures for hand washing. Personnel must wash hands thoroughly, including scrubbing with soap (or other effective surfactant) and running water and drying hands thoroughly using single-service towels, sanitary towel service, electric hand dryers, or other adequate hand drying devices:</p> <ul style="list-style-type: none"> a. Before starting work; b. Before putting on gloves; c. After using the toilet; d. Upon return to the work station after any break or other absence from the work station; e. At any other time when the hands may have become contaminated in a manner that is reasonably likely to lead to contamination of sprouts with known or reasonably foreseeable hazards. 	Observe hand washing stations and employees washing their hands to verify that they are in compliance. Look at training records to verify proper training. Operation develops or revises and implements policy and installs required equipment. Retraining is performed and documented.
4.3.	Glove and Protective Clothing		
4.3.1.	If gloves are used, operation has a glove use policy.	If gloves are used, the operation has a glove use policy that specifies types of glove materials that are allowed, how and when gloves are to be used, cleaned,	Review policy and observe personnel for compliance with the operation's policy and Operation develops or revises glove policy. Retraining is performed and documented.

Requirement	Procedure	Verification	Corrective Action	
		replaced and stored. Policy is in compliance with current industry practices or regulatory requirements for sprouts: (§ 112.32(b)(4)) maintaining reusable gloves in an intact and sanitary condition and replacing such gloves when no longer able to do so).	current industry practices or regulatory requirements.	
4.3.2.	Operation has a policy to ensure clothing worn by food handlers is effectively maintained so as to minimize risk of product contamination.	Operation has a policy that clothing worn by food handlers, including footwear, is effectively maintained, stored and cleaned so as to minimize risk of product contamination. Clothing is stored appropriately during breaks or use of toilet facilities. Clothing worn by all personnel who come into contact with food or food contact surfaces is clean and appropriate for the operation.	Review Operation's policy and observe personnel for compliance. Review training records.	Operation develops or revises clothing policy. Retraining is performed and documented.
4.3.3.	Operation has procedures on use of protective clothing. If it is in product handling areas, it is handled in a manner to protect against contamination.	If protective clothing, such as aprons, hair coverings and gloves, are used, the operation has a policy that specifies types of materials that are allowed, how and when they are to be used, cleaned, replaced and stored. (Protective clothing is not left on product, work surfaces, equipment or packaging material, or taken into non-production areas.) Operation designates areas where protective clothing is stored during breaks and rest room use. Operation has a policy regarding whether protective clothing can be taken home.	Review protective clothing policy and observe personnel for evidence of compliance. Review training records.	Operation develops or revises protective clothing procedures. Retraining is performed and documented.
4.4.	Other Employee Practices			
4.4.1.	Operation develops a policy for removing or covering exposed jewelry and other loose objects that cannot be adequately cleaned and sanitized and for covering hair (including facial hair) while working in production areas.	Operation has a policy to minimize risk for jewelry, loose objects or hair to be a source of product contamination. Policy is in compliance with current industry practices or regulatory requirements for sprouts.	Review policy and observe personnel for evidence of compliance. Review training records.	Operation develops and implements or revises loose objects policy. Retraining is performed and documented.

Requirement	Procedure	Verification	Corrective Action	
4.4.2.	Operation develops a policy and establishes designated areas for breaks and storage of personal belongings.	Operation has procedures for break areas and storage of personal belongings so as not to be a source of contamination of product or production areas.	Review policy and observe produce handling areas and designated area for evidence of compliance. Review training records.	Operation develops and implements, or revises break area and personal belongings policy. Retraining is performed and documented.
4.4.3.	Operation prohibits smoking, eating, drinking, chewing gum and using tobacco except in clearly designated areas.	Operation has a policy prohibiting smoking, eating, chewing gum or tobacco and drinking, except in designated areas. Such areas are designated so as not to provide a source of contamination.	Review policy and observe the personnel for evidence of compliance.	Operation develops or revises and implements policy. Provides designated areas and retraining is performed and documented.
5.	Cleaning and Sanitation			
5.1.	Policy, Schedule and Procedures			
5.1.1.	Operation has established Preventive Maintenance and Master Cleaning Schedules, with related SOPs.	There is a written cleaning and sanitation schedule for all food and non-food contact surfaces including pallets, floors, drains, walls, ceilings and other surfaces that may pose a source of product contamination. Roof leaks are promptly identified, controlled and repaired. Drip pans, drains and filters are maintained to assure fluids (lubricants, condensates, etc.) do not become a source of contamination.	Review Preventive Maintenance and Master Cleaning Schedule along with operation's maintenance records. Inspect building and equipment and observe personnel to verify that they are cleaned and maintained to prevent product contamination.	Operation develops and implements or revises Preventive Maintenance and/or Master Cleaning Schedule, with related SOPs. Building and equipment deficiencies are corrected. Retraining is performed and documented.
5.1.2.	If forced or compressed air is used to dry product, clean packaging, operate air curtains, it shall not introduce contaminants onto food or food contact surfaces. Filters should be cleaned in accordance with manufacturer's instructions or master sanitation schedule.	Operation has procedures to ensure forced or compressed air does not become source of contamination. Operation establishes procedures for cleaning and sanitation of air filters.	Examine records for filter maintenance.	Operation develops and implements or revises policy and the Preventive Maintenance and Master Cleaning Schedule regarding forced or compressed air.
5.1.3.	Operation has written procedures to ensure all food contact surfaces are	Operation has written procedures for cleaning all food contact surfaces, including equipment, tools and utensils	Review cleaning and sanitizing methods and procedures. Observe	Operation develops and implements or revises written cleaning and

Requirement	Procedure	Verification	Corrective Action
	<p>cleaned, sanitized and maintained according to the Food Safety Plan. The record form must specify Food Safety Plan methods of cleaning and sanitizing procedures or refer to those procedures.</p>	<p>used for sprout production and packaging, as appropriate per risk assessment. Any food-contact surfaces must be cleaned and sanitized before contact with sprouts or seeds/beans used to grow sprouts. Operation has written procedures for monitoring chemicals and concentrations used during the cleaning process, and temperature in the case where heating is required. Instructions for disassembly and reassembly are included. Cleaning and sanitizing records refer to these procedures. (When in use, equipment and production lines are maintained so as not to be a source of contamination).</p>	<p>personnel and food contact surfaces. Review cleaning and sanitizing records, to verify compliance.</p> <p>sanitizing procedures and documentation consistent with the Food Safety Plan. Retraining is performed and documented.</p>
5.1.4.	<p>Operation has written procedures for the proper use of cleaning and sanitizing agents. All cleaning and sanitizing agents are approved for their intended use; use is documented.</p>	<p>The operation has written procedures for all chemicals used for cleaning or sanitation in accordance with manufacturer’s intended use.</p> <p>Chemicals used for cleaning and sanitation of food contact surfaces are approved for such use. Approval of intended use is clearly identified through label registration, SDS sheets and/or manufacture’s use instructions.</p> <p>Chemicals used for cleaning and sanitation of non-food contact surfaces are identified and approved for such use. Approval of intended use clearly identified through label registration and/or SDS sheets and or manufacturer’s use instructions. Records of use are maintained.</p>	<p>Review and verify there are written procedures for the proper use of cleaning and sanitizing chemicals.</p> <p>Review cleaning and sanitizing chemicals labels, manufacturer’s instructions or SDS’s to verify chemicals are approved for their intended use. Observe personnel to verify they are following operation’s instructions, and that any actions by personnel during cleaning and sanitizing operations do not exposed product or food contact surfaces to contamination or cross-contamination. Review use records.</p> <p>Operation develops and implements or revises written procedures for the proper use of cleaning and sanitizing agents. Operation ceases use of unapproved chemicals. Retraining is performed and documented. Affected product is evaluated for potential contamination and disposition.</p>
5.2.	Verification of Sanitation		

Requirement	Procedure	Verification	Corrective Action
5.2.1.	Operation has written procedures to verify effective cleaning and sanitization before placing tools and equipment back into service.	The written procedures include the type and frequency of inspection to verify the effectiveness of the program, (such as swabbing of food contact surfaces to verify cleaning procedures through the use of indicators such as ATP, total plate count, etc.) including inspection documentation.	Review verification procedures and records, to verify compliance. Operation develops and implements or revises written verification procedures and record keeping. Retraining is performed and documented.
5.3.	Environmental Monitoring: Listeria Control		
5.3.1.	Operation has a written environmental monitoring plan for the aseptic sampling and testing of <i>Listeria</i> species or <i>Listeria monocytogenes</i> . Testing is performed by an in-house technician or an independent lab that meets the criteria specified in 1.6.2 of these best practices. For testing methods, see § 112.152	<p>Operation has a written procedure for environmental sampling of equipment, floors, drains, cooler pans, etc.</p> <p>a. Operation must establish and implement a written environmental monitoring plan that is designed to identify <i>L. monocytogenes</i> if it is present in the growing, harvesting, packing, or holding environment.</p> <p>b. The written environmental monitoring plan must be directed to aseptic sampling and testing for either <i>Listeria</i> species or <i>L. monocytogenes</i>.</p> <p>c. The written environmental monitoring plan must include a sampling plan that specifies:</p> <ol style="list-style-type: none"> 1. What collected samples will be tested for (i.e., <i>Listeria</i> species or <i>L. monocytogenes</i>); 2. Frequency of collecting environmental samples, (no less than monthly); and 3. Sample collection sites; the number and location of sampling sites must be sufficient to determine whether cleaning measures are effective and must include appropriate food-contact surfaces and non-food-contact surfaces of equipment, and other surfaces within the growing, harvesting, packing, and holding environment. 	Review environmental sampling procedures and records, to verify compliance with § 112.152 Operation develops and implements, or revises written environmental sampling procedures and record keeping and/or finds an appropriate lab for the testing. Retraining is performed and documented.

Requirement	Procedure	Verification	Corrective Action
		<p>d. Environmental samples must be tested for <i>Listeria</i> species or <i>L. monocytogenes</i> using:</p> <ol style="list-style-type: none"> 1. the FDA's method of analysis described in "Environmental Sampling and Detection of <i>Listeria</i> species or <i>L. monocytogenes</i> for Sprout Operations," October 2015, U.S. Food and Drug Administration; or 2. A scientifically valid method that is at least equivalent to the FDA method in accuracy, precision, and sensitivity. 	
5.3.2.	<p>Operation has a written procedure for corrective actions if <i>Listeria</i> species or <i>L. monocytogenes</i> is detected in the growing, harvesting, packing, or holding environment.</p> <p>§ 112.145</p>	<p>Operation develops written procedures for corrective actions if <i>Listeria</i> species or <i>L. monocytogenes</i> is detected in the growing, harvesting, packing, or holding environment:</p> <ol style="list-style-type: none"> a. Conduct additional testing of surfaces and areas surrounding the area where <i>Listeria</i> species or <i>L. monocytogenes</i> was detected to evaluate the extent of the problem, including the potential for <i>Listeria</i> species or <i>L. monocytogenes</i> to have become established in a niche; b. Clean and sanitize the affected surfaces and surrounding areas; c. Conduct additional microbial sampling and testing to determine whether the <i>Listeria</i> species or <i>L. monocytogenes</i> has been eliminated; d. Conduct finished product testing when appropriate; e. Perform any other actions necessary to prevent reoccurrence of the contamination; and f. Take appropriate action to prevent any food that is contaminated with <i>L.</i> 	<p>Review procedures and records, to verify compliance.</p> <p>Operation develops and implements or revises written procedures and record keeping for corrective actions. Retraining is performed and documented.</p>

Requirement	Procedure	Verification	Corrective Action
		<i>monocytogenes</i> from entering into commerce.	
6.	Control of Sprouting Operations		
6.1.	Seed Treatment Prior to Sprouting		
6.1.1.	<p>Operation must ensure that seeds are treated, prior to sprouting, using a scientifically valid antimicrobial treatment, shown to reduce microorganisms of public health significance on seeds for sprouting. Treatment must be performed on non-pre-treated seeds, according to treatment directions, immediately before sprouting.</p>	<p>Operation has written procedures for ensuring that all seeds are treated, prior to sprouting, using a scientifically valid antimicrobial treatment, shown to reduce microorganisms of public health significance on seeds for sprouting. Procedures include:</p> <ol style="list-style-type: none"> a. Verification of scientifically valid treatment method used for each treatment used. b. The method and procedures used to verify treatment parameters, such as temperature of treatment, duration of treatment, concentration of chemical and ratio of chemical solution to seed. c. Daily logs of controlled measurements for each of the treatment applications used, such as: lot number, quantity of seed, volume of water, concentration of sanitizer, temperature of treatment, microbial application, contact time, etc. 	<p>Review operation's written procedures for seed treatment and daily logs for completeness. For in-house treatment, review treatment protocol and interview person responsible for treating seeds to verify treatment is in accordance with treatment protocol.</p> <p>Operation develops and implements or revises written procedures to ensure all seeds are treated prior to sprouting using a scientifically valid antimicrobial treatment shown to reduce microorganisms of public health significance. Retraining is performed and documented.</p> <p><i>Automatic failure if operation has no effective seed treatment procedure.</i></p>

Requirement	Procedure	Verification	Corrective Action	
6.1.2.	<p>Operation has written procedures for accepting seed that is treated prior to delivery using a scientifically validated method to reduce pathogens of public health significance. Pre-treated seeds are packaged and handled in a manner that minimizes the potential for contamination.</p>	<p>When seeds are purchased with prior treatment, operation develops written procedures for segregating treated and untreated seed and retains:</p> <ul style="list-style-type: none"> a. Documentation from the purchase entity (such as a Certificate of Conformance) for each lot of seed received. b. Daily documentation, including lot numbers and quantity of seed for each batch of pre-treated seed used for sprouting. 	<p>Review procedures for seed purchased with prior treatment and documentation of pre-treatment for any seeds that were not treated in-house by operation. Review receiving records; observe seed storage for potential co-mingling of pre-treated and non-pre-treated seeds, or sources of contamination of pre-treated seeds.</p>	<p>Operation develops and implements or revises written procedures for purchase, receiving, and storage of pre-treated seeds that are not treated in-house. Documentation procedures are developed. Training or re-training is performed and documented.</p>
6.1.3.	<p>Operation develops written procedures to ensure chemicals (if used) are handled appropriately, labeled for food contact and meet prevailing regulations.</p>	<p>Procedures for Chemical use (if applicable) include relevant safety factors, such as worker protection standards, personal protection equipment, container disposal, storage, and all protective requirements specified for the chemical or compound. Records of use are maintained.</p>	<p>Review chemical use records for evidence of compliance with approved uses or label directions.</p>	<p>Operation develops or revises safe handling procedures and maintains chemical use records. Retraining is performed and documented.</p>
6.1.4.	<p>Operation has a policy that only trained personnel may apply chemicals, sanitizers and antimicrobials.</p>	<p>Operation maintains records demonstrating that all personnel responsible for chemical applications are trained or supervised by trained personnel.</p>	<p>Review records demonstrating that all personnel applying treatment(s) are appropriately trained or supervised by trained personnel, and their training is verified through records and evidence of performance /conformance.</p>	<p>Operation develops and implements or revises policy that all personnel applying treatment are appropriately trained.</p>
6.2.	Spent Irrigation Water (SIW) Testing for Pathogens			
6.2.1.	<p>Operation has a written sampling plan for aseptic microbial sampling of spent</p>	<p>The SOP includes procedures for:</p> <ul style="list-style-type: none"> a. Aseptically collecting spent irrigation water samples from every production lot of sprouts being sold, after 	<p>Review operation's SOP to verify it includes procedures consistent with the requirements of</p>	<p>The operation revises or establishes written procedures consistent with the requirement of</p>

Requirement	Procedure	Verification	Corrective Action
<p>irrigation water (SIW) as required by regulation.</p>	<p>approximately 48 hours of sprouting whenever 48 hours is possible or practical;</p> <p>b. Defining production lot as “all sprouts that are started at the same time in a single growing unit (e.g., a single drum or bin, or a single rack of trays that are connected to each other), whether or not the sprouts are grown from a single lot of seed (including, for example, when multiple types of seeds are grown in a single growing unit)”. Pooling of water from small production lots is acceptable. Because of the diversity of growing units in use, individual growers may provide documentation to justify their SOP.</p> <p>c. Separate and appropriate spent irrigation water sampling procedures for each growing system: large bins (e.g., mung or soy bean) are sampled in such a way that a small amount of water has passed over the whole bin and been collected for testing; rotary drums are sampled equally from each of the quads for a given sample; trays are sampled equally from each of the trays in the tower for a given sample;</p> <p>d. Collecting at least 1 liter of spent irrigation water per sample using clean and sterile containers;</p> <p>e. If chlorinated water is used for sprout irrigation, a procedure for testing SIW for chlorine residue, and, if there is residual chlorine in the SIW, a neutralizing chemical (e.g., sodium thiosulphate) is added in the sampling container.</p> <p>f. Shipping samples in properly sealed contained with cold packs to arrive at the lab within 24 hours of sampling</p>	<p>this document. Observe a collection procedure to verify:</p> <p>a. that the operation does collect spent irrigation water, aseptically, for microbial testing,</p> <p>b. that it samples/tests every homogenous production batch, collecting a water sample representative of the production lot being tested and defining a batch that is appropriate for the growing system used,</p> <p>c. that samples are collected in such a way as to ensure as much as possible that water has run over the entire batch of sprouts being sampled,</p> <p>d. that sampling containers are clean, sterile and free of anti-microbials, and</p> <p>e. that the volume of water sampled matches the volume specified in the written program.</p>	<p>this document and initiates or revises SIW testing within 30 days.</p> <p><i>Automatic failure if operation has no SIW sampling plan.</i></p>

Requirement	Procedure	Verification	Corrective Action
6.2.2.	Operation chooses a laboratory and/or in-house technician for testing SIW based on the criteria listed in section 1.6.2 of this document.	Additional procedures include: If operation uses an in-house technician for the testing, confirmatory tests, if done, are performed by a qualified laboratory using the same culture enrichment from the initial screening test.	Review operation's written procedures and verify the operation has considered the qualifications of the lab(s) and/or in-house technician consistent with the requirements of this document, including section 1.6.1, and that the laboratory (or laboratories) and/or in-house technician possess the appropriate credentials for the test methods performed. Operation develops and implements or revises additional procedures to ensure laboratory and/or in-house technician meet credentialing requirement for the test methods performed. Operation obtains certification for in-house lab or personnel and obtains documentation that lab(s) and/or in-house technician are qualified, and that testing was performed within accepted protocols.
6.2.3.	Operation has a written procedure for testing spent irrigation water using tests that have been validated specifically for spent irrigation water for at least <i>E. Coli</i> O157:H7 and <i>Salmonella</i> .	The procedure includes: a. That SIW water is tested for at least <i>E. coli</i> O157:H7 and <i>Salmonella</i> . b. Documentation that the tests used have been validated specifically for spent irrigation water for each organism being tested for. c. Documentation that the lab follows validated protocol for microbial testing of spent irrigation water, including the size of samples used for testing and enrichment protocol used. d. Under what conditions confirmation testing will be done following a presumptive positive and e. Procedures for confirmation testing, including that the original culture enrichment from the screening test indicating the presumptive positive result is used. A new sample of spent irrigation water should not be used.	Review written procedures and verify the procedures include the required protocols. Operation develops and implements or revises their written procedures. <i>Automatic failure if operation has no written procedure for testing SIW using tests that have been validated specifically for at least E. Coli O157:H7 and Salmonella.</i>

Requirement	Procedure	Verification	Corrective Action	
6.2.4.	<p>Operation has written policies and procedures, including record keeping, for holding finished product until lab results (either preliminary or confirmed results) are returned before release to market, and for follow-up actions in the event of a presumptive and/or confirmed positive. Procedures include notifying the seed supplier in the event of a positive test result. Personnel are trained to follow policy and procedures; all activities are documented.</p>	<p>The policies and procedure include:</p> <ol style="list-style-type: none"> Day/time of collecting each sample, Method of recording that each production lot has been sampled, Method of holding product until test results are received for specific pathogens tested (i.e. <i>E. coli</i> O157:H7 and <i>Salmonella</i>), Policies for when confirmatory testing will be performed and criteria for conditions under which corrective actions such as product disposition and cleaning and sanitizing will be taken. Method of disposition of all affected product and cleaning and sanitizing the production equipment and surrounding areas, Conditions under which operation will notify the seed supplier. Hold and release records, demonstrating that product was not released into the marketplace until laboratory results were returned, are maintained for 2 years. 	<p>Review procedures to verify they include required elements. Looking at laboratory reports, select one product that has been sampled and gone to the laboratory for which the results have not come back. Verify that all product is still in the operation's control; reconcile the amount of product produced against amount on hold.</p>	<p>Operation establishes and implements or revises their written procedures to correct any non-conformance, makes a decision about those out-of-conformance product that are still in the premises and those that are already released for sale, and retrains personnel.</p>
6.2.5.	<p>Operation has a written Corrective Action plan for responding to a positive test result for spent Irrigation Water (SIW) for a production lot of sprouts.</p>	<p>The Corrective Action shall include at a minimum:</p> <ol style="list-style-type: none"> Discard the sprout batch that tested positive, so that they do not enter into commerce; Discontinue use of all seeds from that lot for sprout production and ensure that the sprouts grown from that lot of seeds do not enter commerce, unless you treat your lot of seeds or beans with a process that is reasonably certain to achieve destruction or elimination of the most resistant microorganisms of public health significance that are likely to occur in the seeds or beans. 	<p>Review records of any positive test results for the corrective actions taken, the disposition of the sprouts and the seed lot if appropriate and notification of seed supplier.</p>	<p>Operation develops and implements or revises its corrective action plan, notifies the entity from which the seeds were purchased and destroys or reverts any remaining seeds into non-food uses.</p> <p><i>Automatic Failure if operation fails to follow this corrective action.</i></p>

Requirement	Procedure	Verification	Corrective Action	
		<ul style="list-style-type: none"> c. Clean and sanitize all food contact surfaces and areas around the equipment that was in contact with the contaminated seeds or the irrigation water. d. Perform any other actions necessary to prevent reoccurrence of the contamination. e. Report the positive result to the entity from whom you received the seeds. f. You may return to using the seeds if further testing finds that seeds are not the source of contamination (e.g., the contamination was caused by previously contaminated equipment or tools that were in contact with the sprouts or the SIW). 		
7.	Packing Material			
7.1.	Operation has specifications for all materials used in the packing of sprouts (including food packaging material).	Material must be adequate for its intended use, including: <ul style="list-style-type: none"> a. Able to be cleaned and sanitized or designed for single use b. Unlikely to support growth or transfer of bacteria c. Appropriate material for food contact. 	Review packing (and packaging) materials to confirm single use or ability to be cleaned and sanitized and appropriate for food contact.	Operation develops procedures and specifications for obtaining packing (and Packaging) materials appropriate for intended use including being cleanable or single use.
8.	Product Labeling			
8.1.	Operation has specifications for all labeling that impacts on food safety and quality.	The operation has documented policies for methods and responsibility for developing and approving detailed specifications for all product labels.	Review operation's policy for methods and responsibilities for product labeling and in-house approvals. Observe labels in use for compliance.	Operation develops and implements or revises policy on product labeling.
8.2.	Operation is in compliance with all relevant laws and regulations and meets prevailing industry standards in labeling its products.	Most areas have labeling laws to protect the consumer. There may be prevailing industry standards and customers may also have requirements. These laws must be understood by a label coordinator and	Review labels with coordinator (if in-house) or written protocol if outside firm is responsible for meeting	Operation develops and implements or revises specifications for labels to meet all prevailing laws, updates labels to

Requirement	Procedure	Verification	Corrective Action	
	Sprout labels should say "Wash before use" and "Keep Refrigerated"	all labels must be checked for accuracy before they are put into use.	laws and prevailing industry standards.	be compliant with prevailing regulations and retrains coordinator and relevant personnel as appropriate.
8.3.	If operation includes sell-by or use-by dates on its products, they have a scientific basis for the dates they use.	Operation has a scientific basis for any sell-by or use-by dates on its products. Dates may be based on shelf-life studies, literature and/or historical knowledge and experience.	If operation includes sell-by or use-by, review basis for the dates used, shelf-life records, check for frequency of tracking and check log of customer complaints about shelf life.	Operation develops and implements or revises shelf-life dating program if relevant.
9.	Allergen Control			
9.1.	If applicable, operation has a written Allergen Control Policy that addresses label control and cross contact control measures. The policy includes procedures for periodic verification.	The Allergen Control Policy lists the allergens in use or storage in the operation, specific to country regulations. If applicable, procedures address identification and segregation of allergens during storage and handling based on a risk assessment conducted by the operation. Production lines and equipment are either dedicated to one seed type where allergens (such as soy, wheat, peanut, etc.) are present, or they are properly cleaned and sanitized between products in order to remove the allergen materials. The policy includes procedures for periodic testing for verification. Labels identifying allergens are as required by prevailing regulations.	Review Allergen Control Policy and inspect operation to verify allergen controls are properly implemented.	Operation develops and implements or revises an Allergen Control Policy or eliminates allergens. If appropriate, operation revises labels and allergen control measures to comply with prevailing regulations. Retraining is performed and documented.
10.	Pest and Animal Control			
10.1.	Operation has procedures to manage pests to the appropriate extent. Procedures address domesticated animals (service animals if present) to ensure they are kept	Operation has a written pest control program, performed by a trained pest control operator (or licensed where required by prevailing regulation). The written program includes policies and procedures applicable to that operation, such as:	Review pest control program, pest control operator's credentials, and inspect operation to verify pest control program and domestic	Operation develops or revises documents and implements an effective pest and domestic animal control program.

Requirement	Procedure	Verification	Corrective Action	
	<p>separate from the sprouts and are not a source of potential contamination.</p>	<p>a. Appropriate storage or removal of outside equipment or other factors that could become pest harborages.</p> <p>b. Securing potential entry points for pests (dock leveler gaskets, door screens, etc.) including exclusion of domestic animals or pets.</p> <p>c. Maps of the location of pest traps outside and inside the building.</p> <p>d. A complete list of pesticides (and respective SDS sheets) approved for use, the methods of use and concentrations used, and the designated areas where they are approved for application.</p> <p>e. Adequate locked storage of any pest control chemicals kept on site.</p> <p>Operation maintains a pest-control log that includes dates of inspection, inspection reports and steps taken to eliminate any problems.</p> <p>Applications of pesticides (e.g. insecticides, rodenticides) are performed in compliance with local, state, and federal pesticide regulations. Pesticides shall be used in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act.</p> <p>Employees are trained in the procedures for service animals (if present) to ensure they are not a source of product contamination.</p>	<p>(service) animal control program is implemented.</p>	
10.2.	<p>If used, pest control devices, including rodent traps and electrical flying insect devices, are located to effectively control pests and so as to not contaminate food-handling surfaces.</p>	<p>a. Only non-toxic traps and pest control devices are used inside the sprout operation.</p> <p>b. inside rodent traps (ketchalls, tin-cats or glue boards etc.) are:</p> <ol style="list-style-type: none"> 1. Against the wall on both sides of all doors leading to the outside. 2. against all exterior walls in the seed storage areas, dry storage areas, 	<p>Review pest control program, service reports and placement of pest control devices.</p>	<p>Operation develops and implements or revises a weekly monitoring program, removes or repositions pest control devices, or other corrective action to be compliant.</p>

Requirement	Procedure	Verification	Corrective Action	
		<p>boiler rooms, etc., sufficient in number, spaced to effectively control pests, and meeting at least industry standards or prevailing regulations</p> <p>A perimeter is maintained around the inside of exterior walls so as to facilitate the ability to monitor pest control.</p> <p>Walls, floors and ceilings are well maintained and free of major cracks and crevices that could be pest entry points.</p> <p>Interior traps should be monitored weekly, bi weekly, or monthly, as specified in the Food Safety Plan, by trained in-house personnel and/or external service.</p>		
11.	Waste Management			
11.1.	Operation has implemented written procedures for handling and removal of waste materials to avoid contamination. § 112.10 and 112.32	Trash, plant material, waste water and other waste materials are removed from the sprout handling areas at a frequency sufficient to avoid becoming a source of contamination.	Review operation's waste management procedures and observe waste control procedures in sprout handling areas.	Operation develops and implements or revises a written waste control procedure. Deficiencies are corrected. Retraining is performed and documented.
11.2.	Operation has written and implemented procedures to ensure outside garbage receptacles /dumpsters are closed and located away from building entrances, and the area around such sites is reasonably clean.	Waste containers and compactors are located away from produce handling areas, are closed or have lids (except for waste collection/cull trailers in active use), are emptied on a scheduled basis or as needed, and weeds and other pest harborage are minimized around the containers.	Review procedures and observe waste container location and management practices.	Operation develops, implements, or revises procedures for locating waste containers, relocates waste containers and ensures surrounding area is clean. Deficiencies are corrected. Retraining is performed and documented.
11.3.	Operation has written and implemented procedures to maintain the plant grounds reasonably free of litter, waste, vegetation, debris,	Written procedures include maintaining the exterior of the building in a manner to minimize sources of contamination, such as litter, vegetation, bird nesting waste, debris and standing water that may be	Review procedures, observe the grounds for compliance and enquire into any recent corrective actions.	Operation removes the attractants and harborages and develops and implements or revises procedures to

Requirement	Procedure	Verification	Corrective Action
	standing water or any other conditions that may serve as an attractant or harborage for pests. Procedures include corrective action policy for instances of concern.	pest attractants or harborages. A 24-inch open area is maintained around the perimeter of the building with no items stored up against the building. Mowed vegetation that does not serve as an attractant or harborage is permitted.	maintain grounds in compliance.
12.	Storage		
12.1.	Operation has written procedures for the maintenance of finished product storage areas in a condition that ensures that product will not become contaminated.	Finished product is stored separate from areas where sprouts are in process or there may be melting ice or other sources of potential contamination.	Review procedures and observe storage area for evidence that stored finished product is protected from contamination. Operation develops and implements or revises written procedures for handling and storage of product. Deficiencies are corrected. Retraining is performed and documented. Affected product is evaluated for potential contamination and disposition.
12.2.	Operation has written procedures for maintaining packaging materials storage areas so as not to be a source of contamination.	Areas designated for storage of packaging materials are clean, well ventilated, and designed to protect materials and finished product from contaminants. Packaging materials are stored off the floor on pallets, slip-sheets or stands, an adequate distance from exterior walls to allow for pest control monitoring, and covered where applicable.	Observe storage areas for evidence that stored materials are protected from contamination. Operation develops and implements or revises written procedures to designate and maintain clean and protected storage areas for packaging materials. Retraining is performed and documented. Sprouts are evaluated for potential contamination and disposition.
12.3.	Operation has written procedures to ensure all chemicals are stored in a secured separate area in a manner to prohibit unauthorized use. All chemicals are properly labeled.	Chemicals, including cleaning and maintenance compounds and lubricants, when not being used, are stored away from product handling areas and in a manner that prohibits unauthorized access. Food-grade and non-food-grade lubricants are kept separate from each other. Any chemicals transferred to	Observe that chemicals are properly labeled, and storage practices protect against unauthorized access, use and product contamination. Operation develops and implements or revises, written procedures for chemical storage and use. Operation designates a secure area for storage of chemicals. All chemicals are labeled or properly discarded.

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	intermediate containers from master containers are properly labeled.		Retraining is performed and documented.	
13.	Transportation (to Customer)			
13.1.	Temperature Control (When refrigerated transport is required by industry)			
13.1.1.	Operation has a written policy for transporting sprouts at a specified temperature.	Transporters have written, predetermined temperature ranges for sprouts. Refrigeration temperatures are recorded for every outgoing truck on the truck log, monitoring device or invoices, etc.	Review operation's requirements and records to verify that specified temperatures were recorded as appropriate.	Operation develops and implements or revises temperature control requirements for transporting sprouts; and record keeping practices.
13.1.2.	Policy includes procedures for transporter or carrier to be pre-cooled prior to loading sprouts.	The Operation has procedures and records demonstrating the vehicle has been pre-cooled to a temperature. The firm has a procedure and records to ensure the vehicle has been pre-cooled to temperature appropriate to the type of sprout as specified by written policy and procedures, and records that show adherence to policies.	Review operation's policies and records and observes vehicles during loading for compliance.	Operation revises or develops, documents and implements vehicle pre-cooling procedures.
13.1.3.	Where required, temperatures of product are taken and recorded prior to or upon loading.	If required, operation has a written procedure for when and how to measure product temperatures prior to or during loading.	Review operation's written procedure and records and observe temperature monitoring procedures during loading.	If required, operation develops and implements or revises policy. Retraining is performed and documented.
13.2.	Carrier Sanitation and Maintenance			
13.2.1.	The Operation has a policy, written procedures and documentation that it has verified that the design and maintenance of vehicles and transportation equipment ensures that sprouts transported do not become unsafe.	Transporters or carriers are suitable and adequately cleanable for their intended use and have temperature control equipment designed to maintain a consistent temperature during the transport of sprouts. Operation has documentation of regular preventive maintenance on the vehicle, and verification of temperatures during transport, such as a temperature recorder.	Review operation's requirements for temperature control, equipment condition and agreements if applicable, Review documentation of pre-op inspection.	Operation develops and implements or revises the policy, written procedures and documentation.

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13.2.2.	The Operation has a policy, written procedures and documentation that it has verified that measures are taken during transportation to ensure safety of transported sprouts. Measures are taken to prevent sprouts from touching raw food, protected from contamination by non-food items in the same load or previous load, and protected from cross-contact, i.e., the unintentional incorporation of a food allergen.	Transporters or carriers are clean, functional and free of objectionable odors before loading, in compliance with current industry practices or regulatory requirements for that commodity. Procedures include prohibition of raw animal or animal product transport, or other materials that reasonably may be a source of contamination with biological, chemical or physical hazards, unless the vehicle has been properly cleaned and sanitized with documentation that it is now ready for sprouts. Records of vehicle inspections prior to loading are created. A responsible individual signs or initials the completed checklist or inspection report. Training of carrier personnel in sanitary transportation practices and documentation of the training is required when the carrier and shipper agree that the carrier is responsible for sanitary conditions during transport.	Review operation's requirements for inspection of carriers or transporters and records of inspections for compliance. Operation develops and implements or revises the policy, written procedures and checklist. Retraining is performed and documented.
13.2.3.	Loading/unloading procedures and equipment minimize damage to and are not a source of contamination of sprouts.	Operation has procedures to ensure personnel responsible for the loading and unloading of sprouts take steps to minimize the potential of physical damage to product, which can introduce contamination. Loading/unloading equipment is clean and well maintained and of suitable type to avoid contamination.	Review Operation's procedures and observe loading/unloading for evidence of practices that result in excessive damage to sprouts. Observe loading/unloading equipment for suitability and condition. Operation develops and implements or revises procedures. Retraining is performed and documented. Affected product is evaluated for potential contamination and disposition.
14.	Worker Education and Training		
14.1.	All personnel, including visitors, receive food safety policy and procedure training, and other appropriate to their responsibilities. § 112.22	All personnel receive training in the operation's food safety policy and plan, food safety procedures, sanitation and personal hygiene appropriate to their job responsibilities. Personnel receive training at hire and refresher training at prescribed	Review program of required training and examine training records for evidence of compliance. Operation develops or revises food safety training program and delivers required training.

Requirement	Procedure	Verification	Corrective Action	
		frequencies, at least annually and as needed. Visitors receive training upon arrival at the operation. Training program includes ways to verify that training has been understood. Documentation of training (at a minimum the person trained, topic covered and date conducted) and the proficiency criteria are available.	Interview personnel to verify that training was received and understood.	
14.2.	Personnel with food safety responsibilities receive training sufficient to their responsibilities. § 112.21 and 112.22	The individual(s) designated for food safety responsibilities demonstrates knowledge of food safety principles. At least one supervisor or responsible party completes the standardized sprout safety curriculum training or its equivalent.	Review the evidence of the individual's qualified sprout safety training, such as a course attendance certificate or proof of participation.	Supervisor or responsible party obtains demonstrable standardized sprout safety training.
14.3.	Personnel responsible for critical steps such as seed treatments and sampling for microbial testing receive training sufficient to their responsibilities. Management has records to ensure that training was received and understood.	The individuals designated for maintaining critical steps demonstrate knowledge of the principles and procedures involved in controlling critical points in the production of sprouts.	Review the procedures and verify the individuals' knowledge of the principles and procedures required for maintaining control at the critical points.	Operation develops and implements or revises training program, delivers required training and ensures competency of trained personnel.
15.	Food Defense Plan			
15.1.	When applicable, operation has registration under the FDA Bioterrorism Act on file on the premises.	Operation has electronic or paper document available with the facility identification number.	If appropriate, ask for facility identification number under the FDA Bioterrorism Act.	Operation registers under the FDA Bioterrorism Act.
15.2.	Operation establishes, implements and regularly reassesses for relevance, a Food Defense Plan in compliance with the Health Security and Bioterrorism Preparedness and Response	Operation performs an assessment of its security and potential risks to the product from intentional adulteration and documents the assessment. Operation develops Food Defense Plan relevant to the operation in accordance with the 2002 Bioterrorism regulation. Operation	Review Food Defense Plan with responsible party; verify the relevance of the plan to the operation.	Operation develops and implements or revises Food Defense Plan, which is relevant to the operation.

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	Act of 2002 (Public Law.107-188 – June 12, 2002).	reassesses the operation and the plan at least annually.	
15.3.	The Food Defense Plan addresses preventative measures relative to product tampering and deliberate contamination at the processing operation and during transport in commerce.	Operation assesses potential for tampering with product, and addresses preventive measures, such as tamper evident packaging materials and appropriate security of product while on a carrier or in transportation. The procedure includes measures taken to lock or seal the container at any time it is left unattended.	Review operation’s Food Defense Plan and verify that preventive measures addressing potential for product tampering or deliberate contamination are implemented.
15.4.	Operation has available a list of management contacts and procedures for notifying appropriate authorities in the case of an emergency or security issue.	A list of contact information for key management personnel, as well as appropriate authorities, is posted in a readily accessible location for use by employees in the case of an emergency or security issue. The location of the list will be made clear in the training program.	Review operation’s contact information and assess employee awareness.
15.5.	Operation has written and/or documented procedures for screening all potential employees and visitors.	SOPs shall be in place addressing workers, contractors, delivery personnel and visitors. These SOPs shall include, as appropriate, the use of background checks, restricted access to vulnerable product areas of processing and storage, and supervision while on the premises.	Review operation’s employee screening procedures and relevant visitor restrictions and monitoring.
15.6.	Supplier delivery personnel, contract workers and other visitors are not allowed access to product areas of processing and storage except when accompanied by an employee.	Based on its assessment of risk areas, operation creates a plan to identify visitors and restrict or monitor their access to any areas it considers vulnerable or non-essential for the visitor.	Review operation’s program for restricting supplier delivery personnel, contract workers and other visitors from sensitive areas when not accompanied by an employee.
15.7.	Operation secures points of entry to establishment, as	Based on assessment of its security and potential risks to the product from intentional adulteration, operation secures	Observe establishment security.

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	well as utilities and wells within its control.	all buildings, utilities and wells within its control.	
15.8.	Operation has a documented Food Defense Plan training program for all employees.	Management will train all personnel in the operation's Food Defense Plan policies and retrain annually. In addition, employees are retrained whenever the Food Defense plan changes.	Review operation's training program and recent documentation of training.
15.9.	<p>Operation has a poisonous and toxic chemical control program.</p> <p>Operation develops and implements policies and procedures to prevent unauthorized use of poisonous and toxic chemicals (such as cleaning and sanitizing agents, pesticides, etc.).</p>	<p>The elements of this program include:</p> <ol style="list-style-type: none"> 1. Limiting poisonous and toxic chemicals to those that are required for the operation and maintenance of the buildings and equipment, and keeping track of their use (i.e., With logging in and out) and investigating missing stock or other irregularities outside a normal range of variation. Reporting to authorities, when appropriate, immediately after discovery of potential contamination of product that has left the control of operation. 2. Ensuring that poisonous and toxic chemicals are properly labeled at all times. 3. Properly labeled poisonous and toxic chemicals shall be stored securely and away from food handling and storage areas. 	<p>Review policies and procedures pertaining to use and access to poisonous and toxic chemicals stored on site and any associated records (such as inventory, use). Observe storage of chemicals (labeling, location, accessibility). Interview personnel to assess knowledge of policies and procedures.</p>

The Sprout Safety Task Force and the Institute for Food Safety and Health (IFSH) thank the following Growers, Suppliers, Markets, Researchers, Regulators and Colleagues who collaborated in the creation of this document for the strengthening of an emerging Sprout industry

Requirement

Procedure

Verification

Corrective Action

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Note: while several Food and Drug Administration staff provided technical input and review of this document, it does not reflect the view of the Food and Drug Administration, the Department of Health and Human Services, or the United States government.