## **Food Safety Practices to Expect from Your Fresh-Cut Produce Processor**

School nutrition operators should ensure that fresh-cut produce is purchased from reputable suppliers that adhere to the Food and Drug Administration's (FDA) science-based *Guide to Minimize Microbial Food Safety Hazards of Fresh-cut Fruits and Vegetables* and FDA's *Current Good Manufacturing Practices* (cGMPs). Key school nutrition staff involved in purchasing activities should visit their fresh-cut produce processor at least annually to observe food safety practices, inspect facilities, and ask questions regarding the food safety requirements they have for their produce and packaging suppliers. Consider organizing the site visit with other school district purchasing staff or purchasing cooperative members to reduce the number of visits. To be considered a reputable supplier, *all* facilities should be properly licensed and in compliance with local, state, and federal food safety regulations.

This document identifies food safety practices that should be adhered to by fresh-cut produce processors. Fresh-cut fruits and vegetables are ready-to-eat items that have been cleaned, and then peeled, sliced, chopped, shredded, cored, or trimmed, but not cooked or frozen, before being packaged for consumer use. These minimally processed fruits and vegetables pose a greater risk of causing food borne illness because the protective skin has been cut, thus exposing flesh and moisture that could serve as a growth medium for pathogens. If bacteria are present on the fruit or vegetable before fresh-cut processing, these bacteria could readily multiply on the cut surfaces and attach to the surface in the form of a biofilm. Therefore, it is critical that fresh-cut processors follow proper food safety and sanitation procedures to prevent foodborne illness.

Use the information in this guide to verify if a potential or current supplier is a reputable source of fresh-cut produce for your school nutrition program. The accompanying list outlining specific food safety policies and practices, including the Hazard Analysis and Critical Control Point (HACCP) plan will help you ask questions on your visit to ensure you have confidence in the fresh-cut produce processor's food safety program.

Although this document focuses on fresh-cut produce processors, many of the food safety policies and practices also are applicable to other types of food processors or distributors.

#### **Definitions**

Aerobic Plate Count (APC) - An indicator of the level of bacteria in a food or on a food contact surface. APC does not determine presence of specific pathogens, but may be an indication of poor sanitation practices in the facility.

Adenosine triphosphate (ATP) - A molecule found in and around living cells. ATP testing is a commonly used bioluminescent indicator to detect the amount of organic matter left on food contact surfaces after it has been sanitized. Results can be known in approximately 30 seconds allowing personnel to immediately respond to findings. This test does not identify pathogens.

*Biofilm* - *Colonies* of bacteria that adhere to surfaces and begin to excrete a slimy, glue-like substance (also known as extracellular polymeric substance) that can anchor bacteria to all kinds

of material, including fresh produce and packaging material. Once formed, bacterial biofilms may be hard to remove or inactivate using sanitizers such as chlorine or hydrogen peroxide.

*Chain of* custody - The documentation of a food item showing each step in development process: acquisition, transfer, handling, and disposition.

Clean - Visually free of dust, dirt, food residues and other debris.

Current Good Manufacturing Practices (cGMPs) - A set of requirements established by the FDA for manufacturing, packaging, or holding human food. These standards can be found in Section 21 Part 110 of the Code of Federal Regulations, available at: http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?fr=110.110

*Food Hazard* - A biological, chemical, or physical agent reasonably likely to cause human injury.

Good Agricultural Practices (GAPs) and Good Handling Practices (GHPs) - U.S. Department of Agriculture (USDA) and FDA best practices to verify that fruits and vegetables are produced, packed, handled, and stored prior to further processing in the safest manner possible to minimize risks of microbial food safety hazards.

*Hazard Analysis and Critical Control Point (HACCP)* - A preventative system to reduce the risk of foodborne illness through appropriate food handling, monitoring, and record keeping.

*HACCP Plan* - The written document based upon principles of HACCP specific to a facility that identifies procedures to be followed to prevent foodborne illness.

*Indicator Organisms* - Indicator microorganisms are used for a variety of purposes in food systems including evaluating quality or safety of raw or processed food products and validating effectiveness of microbial control measures such as sanitizing systems. Ideally, the absence or a low concentration of a specific indicator microorganism means that food has not been exposed to conditions that would permit contamination by a specific pathogen or present the opportunity for its growth.

*Trace back* - The process of tracking food items back to their source (seed supplier, growers, packers, processor, fields and harvest date).

*Trace forward* - The ability to trace the produce one step forward in the chain of custody.

## **Planning the Fresh-Cut Processor Visit**

As a current or potential buyer, you should visit the processor to observe their food safety practices and review documentation of those practices, specifically in the following areas: Receiving, storing, and processing of produce; facility integrity and utilities, including processing water; packaging of finished product; cleaning and sanitizing practices of food and

facilities; employees' health and hygiene practices; employees' food safety training; and the recall and traceability program.

## Initial Steps

- Contact the fresh-cut produce processor via phone or email to explain why you are interested in visiting the facility, and if the company is interested in being a potential vendor to your district.
- Ask whether the processor is willing to work with you to arrange a site visit for school nutrition directors and/or other staff members.
- Ask how many people can be accommodated on the visit.
- Determine if appropriate state and/or federal licenses are current. Be sure to tell the processor that as a school nutrition director, you are responsible for purchasing safe, fresh produce for the nutrition programs' customers.
- Provide the processor with an estimated volume of fresh-cut produce served/purchased on a weekly or monthly basis. Share information about your school district, such as the number and locations of schools to communicate buying power, as well as presence or location of central kitchen or warehouse facilities.
- Discuss payment process, delivery expectations, including day(s), time frame of delivery, and specific required receiving temperatures.

## Scheduling the Visit

- Determine a good time to schedule the visit. Be flexible on the day and time. If you
  would like to see specific activities, such as receiving, processing, packing, or loading
  customer orders, your visit may need to take place outside of normal business hours.
  Produce operations typically receive produce and fill orders late at night and very early in
  the morning.
- Discuss any specific activities that you would like to observe, for example:
  - o Receiving produce from suppliers
  - o Processing and packaging
  - o Filling and loading customer orders
  - Handling customer returns
- Ask if any local farms are current produce suppliers. If yes, determine if a site visit is possible. See resource *Verifying On Farm Food Safety* available at: <a href="http://www.nfsmi.org/documentlibraryfiles/PDF/20110822025822.pdf">http://www.nfsmi.org/documentlibraryfiles/PDF/20110822025822.pdf</a>
- Discuss how much time will be available for the tour, and how much time will be available after the tour for additional questions.
- Tell the processor that you would prefer that someone who is knowledgeable about the company's HACCP plan and food safety policies and procedures, including microbiological testing be included in the tour.
- Ask whether the processor has a visitor policy and/or dress code that should be reviewed in advance. For example, closed-toed shoes that are not damaged by stepping into a footbath may be required.
- Be sure to get the distributor's physical address, suggested driving directions and instructions on the best location for parking. Discuss arrival security procedures such as whether identification will be necessary for entry (i.e. driver's license).
- Answer any questions the processor may have regarding the site visit and your expectations.

## Preparing for the Distributor Visit

- Wear appropriate attire, including non-absorbent, comfortable closed-toed sturdy shoes. Bring other items such as a hat, jacket (some storage and processing areas are cold), gloves, notebook and pen/pencil.
- Ask whether there are mobility restrictions.
- Ask the processor for permission <u>before</u> taking photographs or videos. Explain how they may be used such as placing the photographs or videos on your school district's website. If the photographs or videos will be used on a website, a signed release form is recommended.
- Confirm employer insurance policies for accidents that could occur during the site visit.

# **Specific Food Safety Policies and Practices to Observe**

As you walk through the processing facility pay close attention to the food safety policies and practices listed in each of the sections below. Ideally, the tour should flow in a counter product traffic direction from finished product rooms to raw product handling to prevent possible contamination from visitors.

You may not be able to observe all food safety practices in the short visit; therefore this list will help you focus on the most critical areas of concern. These policies and practices are based on FDA cGMPs requirements and HACCP principles. All fresh-cut produce processors are required by regulation(s) (state and/or federal) to follow cGMPs science-based practices.

Discuss the employee training program. If you observe a policy or practice that does not seem consistent with their policies or information in this document, you should discuss the concern with the processor and ask how the policy or practice could be improved to meet your standard. If you observe several policies and practices that are inconsistent with the information in this document, you may determine that the company is not a reputable supplier. Use the list outlined below as documentation of your supplier approval process.

## Microbiological Testing Program:

Discuss the company's microbiological testing program(s) with knowledgeable personnel. Companies use various microbiological testing methods of the environment, water, and food to ensure the safety of the end product. Environmental samples (i.e. food contact surfaces) are tested to ensure that indicator organisms do not exceed acceptable standards. Adenosine triphosphate (ATP) is a commonly used biological test. High levels of the bioluminescent residue indicate that organic matter (not necessarily pathogens) is present on food contact surfaces, therefore additional cleaning and sanitizing is required.

Companies should monitor and test their wash water. Most facilities will test for fecal coliforms, and generic *E.coli* (also known as Biotype I/II) to ensure that Environmental Protection Agency (EPA) potable water standards are being met. Water testing of produce wash water may be done throughout each shift as a precaution. For more information on potable water, go to the EPA website, available at: http://water.epa.gov/drink/contaminants/basicinformation/pathogens.cfm

While not mandated, the produce processing industry typically tests for presence of specific pathogens on the product, including *Listeria spp*, *Salmonella*, and *E.coli* 0157:H7. All produce processing companies should have a microbial testing program, however some conduct testing in house, while others may outsource this verification step.

Specific microbial testing questions for the processor:

- What type(s) of microbiological test(s) are conducted for incoming product, wash water, food contact surfaces, and finished product?
- How often are your employees trained on conducting microbial testing?
- How often do you validate your sanitation program through testing?
- Is the microbial analysis completed in house or outsourced? If outsourced, what are the criteria used to select the laboratory?
- What is the frequency of testing and what standards are used before a corrective action is taken or product rejected?
- What microbial testing is required of your produce suppliers?

#### General:

- Facility access is limited and secure from non-authorized persons.
- Drinking, eating, smoking, and chewing gum are only permitted in designated break areas.
- Toilet facilities are clean, in appropriate locations away from processing and packing, and adequate in number. All toilet facilities include a hand washing station stocked with soap, single-use paper towels or hand air dryer, and covered garbage receptacles. Potable, running, warm water is available at all hand washing stations. See Occupational Safety & Health Association for more information on number of required toilet facilities:
   <a href="https://www.osha.gov/pls/oshaweb/owadisp.show\_document?p\_table=STANDARDS&p\_id=202">https://www.osha.gov/pls/oshaweb/owadisp.show\_document?p\_table=STANDARDS&p\_id=202</a>
- Hand washing stations are clean, easily accessible, and adequate in number. All hand
  washing stations should have potable, running, warm water, and be stocked with soap,
  single-use paper towels or hand air dryer, and covered garbage receptacles.
- Employee personal items are not stored in produce receiving, storage or processing areas.
- Safety Data Sheets (SDS formerly known as Material Safety Data Sheets) for all chemical agents are on file and readily available for employee reference.
- Forklifts, pallet jacks, and floor cleaning equipment are clean, do not leak or emit fumes, and are operated either inside or outside to prevent cross contamination.
- Pallets and other containers are clean and in good condition.

## Facility Exterior:

- Facility is enclosed, and entrance and access doors are kept closed when not in use.
- Facility perimeter security is maintained with fence, cameras, lighting, etc.
- The area around any dumpster or trash areas is clean. Garbage and fresh-cut culls are frequently removed on a regular schedule.
- Outside garbage receptacles and dumpsters are kept covered or closed.
- The area immediately outside the facility is free of litter, tall vegetation, and standing water which may attract pests.

• Exterior doors and entrances have adequate closure seals

#### Facility Interior:

- Visible surfaces, fixtures and equipment are clean and in good condition. If you observe an area that is not clean, inquire about cleaning standard operating procedures. If possible, review the master sanitation schedule, written cleaning procedures, and/or sanitation logs.
- All exposed materials, such as produce, processing lines, or packaging, are protected from contamination by fans, motors, condensation, lubricants, leaking pipes, flaking paint, corrosion, rust, or any other potential food hazards.
- Plastic strip curtains are maintained in good condition. The curtains are clean and mounted so that tips are not touching the floor.
- Strip curtains must run the entire width of the opening with sufficient overlap between flaps (½ inch).
- All storage areas are clean, especially racking structures, lights, ceilings, floor areas by the walls, and other hard-to-reach areas.
- Interior lighting is sufficient, in good condition, and enclosed in shatterproof coverings or shatterproof bulbs are used.
- Floor surfaces are in good condition, slope to a floor drain or trench drain, with no standing water or cracks, and are kept clean.
- Floor drains are free from debris and standing water, this indicates functioning drainage.
- Ceilings, floors and walls are free from cracks and crevices, and constructed of nonporous materials that are easily cleaned from top to bottom. Pressure washers could drive food material into cracks or crevices. The food material could harbor pathogens and be a risk for cross contamination.
- Product and product packaging are removed during cleaning and sanitizing to prevent cross contamination through splash back.

#### Pest and Animal Control:

- Facility is free from presence of pests such as rodents, birds, reptiles, and insects, and evidence of pests such as droppings or nesting materials.
- Preventive measures are in place to prevent pest entry such as sealed doors, window screens, and entry air curtains. Floors, walls and ceilings are free from holes or cracks that could allow pest entry.
- Cracks or holes shall be sealed and doors and windows shall close tightly with no opening larger than 1/4" to prevent entry.
- Pest control devices, such as rodent traps and insect light traps, are located away from exposed food products, and monitored on a scheduled basis. A plan for corrective action is in place. Routine service reports from licensed pest control operator are available.
- Other animals, including pets, are restricted from areas where produce is located.

#### Personnel:

• Employees and visitors are required to follow processor's food safety health and hygiene policies.

- Employees are trained on the company's health and hygiene policies, cleaning and sanitizing practices, and cGMPs. Training logs are maintained and include topics covered and attendee list.
- Employees are trained on safe glove use, when and how to wear gloves and when to change them; bare hand contact with food is avoided.
- Employees are trained to report any cuts or wounds to their supervisors, with a defined procedure in place.
- Employees are trained to report specific health symptoms or illness to their supervisors that may be a contamination risk to the product, with appropriate steps taken and documented.
- Employees processing food products are appropriately attired with clean uniforms, aprons, hair restraints, and beard coverings, where applicable.
- Employees are practicing proper glove use, and following the company's health and hygiene policies, proper sanitation practice, and cGMPs.
- Personal items are not seen in food flow areas.
- A supervisor not involved in documenting implementation of the food safety plan or any corrective action taken ensures records are maintained daily, weekly, or as required.

## Facility Layout:

- Facility layout is designed to prevent cross contamination.
- Rest rooms do not open into the processing area.
- Doors to the outside are not located in the processing area.
- The microbiology lab is not directly accessible from the processing area.
- Raw, in-process and finished produce items are stored in dedicated and separate cold storage rooms.
- Hand washing stations, hair restraints, clothing covers, and foot disinfectants (foam, bath or spray) are located at all processing room entrances and exits.
- The facility is designed for one directional flow of personnel, product, and equipment.
- Produce processing flow is from raw to finished, packed product.
- Air distribution systems move air from cleanest areas (i.e. packaging) toward the less clean areas (such as receiving).

#### *Equipment:*

- The microbiological testing program includes a routine for taking random sample swabs (ATP test) of equipment and processing environment to ensure cleanliness.
- All food contact surfaces are smooth, sealed, made of non-absorbent materials and easily cleaned. This includes knives, conveyor lines, belts, totes, shovels, cutting boards, tables, spin dryers and baskets, and scales.
- Open grate catwalks do not cross over exposed product or food contact surfaces.
- Equipment is designed to prevent water collection.
- Food contact surfaces are raised sufficiently above the floor to prevent cross contamination from floor splashes.
- Stationary equipment is not located near floor drains.
- Equipment design and condition (smooth surfaces, smooth welds, seams, non-toxic materials, and no wood) facilitates effective cleaning and maintenance.

- Trained equipment personnel follow an established maintenance schedule. This includes calibrating thermometers, sharpening and disinfecting knives, inspecting cutting blades and belts, testing for proper level of water disinfectant, and changing air filters.
- Documentation of scheduled maintenance is available.
- Trained sanitation personnel carry out a comprehensive sanitation program that includes routine cleaning and sanitation following a master schedule. The sanitation master schedule should identify the area, the cleaning and sanitation methods, tools, frequency, and the person or position responsible.
- Reporting of cleaning and sanitizing program is documented with day and time of task(s) completed.
- Cleaning and sanitizing chemicals and supplies are stored in a dry, secure and ventilated room away from the food processing area and used only for designated purposes.

## Receiving Unprocessed Produce:

- Incoming transport vehicles are inspected for cleanliness, possible cross contamination risks, and pests. Deliveries that do not meet specifications are rejected.
- The processor upholds a policy to reject fresh produce that does not meet quality, condition, temperature, or other requirements.
- Rejected or on-hold product or materials are clearly identified and kept segregated from other product.
- Produce is received only from approved suppliers. A list of approved suppliers and dates of delivery of raw materials, ingredients and packaging materials is maintained.
- Third-party audit reports such as GAPs, cGMPs, and HACCP certifications and/or letters of guarantee for products, raw materials and ingredients are required from suppliers and maintained by the vendor.
- Fresh produce is received by trained, designated employee(s), and inspected for quality, condition, temperature of product, and compliance with specifications, including label information of harvest date, grower identification, and field identification. Inspection results are recorded on receiving log.
- Produce is date-marked with rotation codes for First-In; First-Out (FIFO) using receipt or harvest dates, and placed into recommended temperature storage area(s).
- Produce is not left sitting unattended on dock in temperatures that adversely affect food safety and quality.

#### Storing:

- The storage area is restricted to food products and packaging supplies only. No personal items are mingled with inventory.
- Products, ingredients, and packaging supplies are rotated using a FIFO policy.
- Storage areas are maintained at temperatures appropriate for specific product. Storage temperatures of areas are recorded on temperature logs and checked at least daily.
- Non-glass and non-mercury thermometers are present in all refrigerators with at least one located in the warmest area of the refrigerator (nearest the door).
- Refrigeration units, including coils and gaskets, are clean, floors are free from standing water, condensation units are not leaking, and fan guards are dust-free.

- Ingredients, including ice, products, and packaging are stored to prevent cross contamination. Pallets of iced product are not stored above other product.
- Detergents, sanitizers, lubricants, pesticides, and other chemical agents are labeled correctly and securely stored away from product or production lines.

### *Processing:*

- Processing occurs in an enclosed room with appropriate controlled temperatures (41°F or below).
- Processing flow avoids potential for cross contamination between unwashed and washed produce.
- Fresh produce is thoroughly washed and sorted in an area separated from cutting and packing sections of the line to remove dirt, debris, and decomposed produce which helps minimize potential food hazards.
- The fresh-cut processor has developed and follows an approved process for each finished product.
- Separate processing runs for each produce item are completed, with cleaning and sanitizing (top to bottom) of equipment between runs.
- Post-processing controls include a final wash of cut produce and, when appropriate, draining or spinning to remove excess moisture before packaging.
- Containers used to hold finished product prior to packaging are not in direct contact with the floor.

# Processing Water:

- Facility complies with the federal, state and/or local requirements for safe water used on food, food contact surfaces, and in the making of ice.
- Produce wash water is tested frequently for adequate levels of the sanitizing chemical, as soil and other contaminants can break down effectiveness of the sanitizing agent.
   Common chemicals include: chlorine, chlorine derivatives, ozonated water, and peroxyacetic (or peracetic) acid. Discuss the wash water treatment practices and specific sanitizing chemical(s) used by the processor.
- Processing water is tested for fecal coliforms, and generic *E.coli* (also known as Biotype I/II) to determine if water has become contaminated and is unsafe to use.
- If processing water is reused, the flow of water should result in water with microbial loads acceptable for use on finished produce.
- There is adequate protection against backflow of contaminated water.
- Wash water is filtered to minimize presence of dirt and debris.
- Inspection of water quality systems and backflow devices are conducted routinely with results documented.
- Fresh produce receives at least one wash or a series of washes adequate to remove surface organic material.

## Packaging:

- Product packaging occurs in an enclosed room.
- Packaging materials are approved for food contact, and inspected for contaminants, damage, or defects prior to use.

- Packaging containers have not previously been used for storage of food, tools or other supplies. Processed produce is packaged only in new or acceptable, reusable sanitized containers.
- Finished product is labeled with ingredient content, recommended safe storage and handling instructions, name and contact information of processor, and other information as needed.
- Best if Used By dates have been predetermined by the fresh-cut produce processor for each type of produce processed through shelf life and microbiological studies, and are labeled on each package.
- If applicable, gasses, equipment and packaging materials used for processing Modified Atmosphere Packaged (MAP) foods are inspected for contaminants, damage, or defects prior to use. Appropriate gas mixtures for products should be determined. MAP uses a reduced oxygen level to maintain quality and extend shelf-life by slowing plant respiration. The bacterium *Clostridium botulinum* thrives in very low oxygen environments, but it is expected that the produce will spoil before toxins are a concern.
- Product is coded to maintain traceability of product.

## Shipping/Transportation:

- Finished, packaged, fresh-cut produce items are held under refrigeration at or below 41°F for that product to maintain quality and prevent microbial growth.
- Finished products are held under refrigeration in a manner to allow adequate cold air circulation.
- Finished products are stored and distributed following FIFO practices.
- Finished products are secure from intentional contamination. For example, loaded trucks are sealed or locked.
- Outgoing transport vehicles are regularly inspected for cleanliness and pest infestation.
- Vehicle storage areas are at the appropriate temperatures for products, and loaded in a manner that prevents cross contamination.

## *Traceability:*

- Company has a product tracking system, enabling one link of food chain trace back and trace forward of products.
- Company has a recall program, including written procedures, recall team responsibilities, and 24/7 contact information. The company conducts a mock recall at least annually to test the plan and ensure effectiveness.

## Food Defense:

The following measures are taken to minimize intentional contamination of product.

- Processor has assessed food defense threats and has a documented plan of action should a threat be identified.
- Vulnerable points in the facility have been identified with additional access controls in
  place. Examples of access control include exterior perimeter protection such as locked
  doors, limited access to specific areas, security cameras, sensors, guests required to be
  escorted inside the facility, etc.
- HVAC equipment and water supply systems are protected from intentional threats.

- Employees and visitors wear identification badges issued after confirmation from a government issued photo identification document. Policy allows employees in food storage or processing areas for scheduled trainings or work shifts only.
- Background checks on employees are conducted prior to hiring, or during employment if concerns arise.
- Staff are trained about potentials for intentional contamination of products and encouraged to "see something, say something".

#### Documentation:

- The FDA recommends food processors maintain records documenting product information and compliance with food safety best practices.
- Records that may be kept include the following:
  - o Wash water testing records
  - o Water treatment and monitoring records
  - o Employee schedules
  - o Employee training records
  - o Temperature control records
  - o Equipment monitoring and maintenance records
  - o Calibration records
  - o Sanitation records
  - o Product processing batch records
  - o Traceability records
  - o Corrective action records
  - o Pest control records
  - o Distribution records
  - o Inspection records
  - o Environmental (food contact surfaces) testing records

## **Additional Food Safety and Purchasing Discussion Topics**

Consider discussing the following topics with the processor to gain additional information that may help to determine reputable vendor status.

- Is produce purchased from GAP certified farms, and/or are farms inspected for good agricultural and good handling practices?
- How often are food safety site visits of suppliers conducted?
- Does the company use third-party audit certification(s) such as USDA Qualified through Verification (QTV)? Ask to review the latest site visit report; note date of occurrence and score.
- How did the company conduct a hazard analysis on processed products? Are there flowcharts available for review?
- What is the company's food product liability insurance holding?
- What are the food product liability insurance requirements for company's suppliers?
- What are the food product and automobile liability insurance requirements for the school district?
- What types or levels of background or screening checks are conducted on employees prior to hire and/or during employment?
- Does the company have previous or current involvement with recalled produce items?

- Has the company been previously or is it currently named in a lawsuit linked to contaminated produce?
- What policy does the company have for customer returns of product due to product quality and/or condition factors?
- What action does my district take if product is returned due to a recall?
- What are the company's ordering and payment schedules?

#### **After the Visit**

- Thank the vendor.
- Invite the vendor to visit your facility.
- Provide any additional information requested by the vendor.

#### Resources

University of Florida Food Science and Human Nutrition Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences (2008) – *Sanitary Design and Construction of Food Processing and Handling Facilities:* http://ucfoodsafety.ucdavis.edu/files/26503.pdf

U.S. Environmental Protection Agency - *Basic Information about Pathogens and Indicators in Drinking Water:* http://water.epa.gov/drink/contaminants/basicinformation/pathogens.cfm

U.S. Food and Drug Administration- *Guidance for Industry: Guide to Minimize Microbial Food Safety Hazards of Fresh-cut Fruits and Vegetables:*<a href="http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/ProducePlantProducts/ucm064458.htm">http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/ProducePlantProducts/ucm064458.htm</a>

U.S. Food and Drug Administration - Analysis and Evaluation of Preventive Control Measures for the Control and Reduction/Elimination of Microbial Hazards on Fresh and Fresh-Cut Produce:

 $\underline{http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInfor}\\ \underline{mation/ProducePlantProducts/ucm064458.htm\#ch7}$ 

U.S. Department of Agriculture, Agricultural Marketing Service, Fruit and Vegetable Program, Processed Products Division (2012): *Qualified Through Verification(QTV) Program for the Fresh-Cut Produce Industry* 

U.S. Department of Agriculture, Agricultural Marketing Service: Standards and Specifications, Commercial Items Descriptions:

 $\frac{http://www.ams.usda.gov/AMSv1.0/ams.fetchTemplateData.do?template=TemplateN\&navID=CommercialItemDescriptions\&rightNav1=CommercialItemDescriptions\&topNav=\&leftNav=CommodityAreas\&page=CommercialItemDescription\&resultType=\&acct=procsdgrdcert$ 

U.S. Department of Agriculture, Agricultural Marketing Service: USDA GAP & GHP Audit: <a href="http://www.ams.usda.gov/AMSv1.0/ams.fetchTemplateData.do?template=TemplateN&page=GAPGHPAuditVerificationProgram">http://www.ams.usda.gov/AMSv1.0/ams.fetchTemplateData.do?template=TemplateN&page=GAPGHPAuditVerificationProgram</a>