General Questions

Note: Statements in parenthesis and in italics refer to a log, sign or additional information at the end of each section.

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Implementation of a Food Safety Program

This section consists of a review of the food safety program and the Operators Food Safety Plan that has been designed for your operation. **Management must indicate who has been designated to implement and oversee the program and also who is named as the backup in case this person is not available.** The company may be asked for the Food Safety Plan to review before the day of the audit. This will speed up the process and reduce time for everyone on the day the actual audit is held.

Traceability

Traceback is the ability to track food items, including fresh produce, back to the original source and forward to the destination. This cannot prevent an initial food borne outbreak, but it may help speed up the process to pinpoint the source. The faster the source is located the faster the rest of the produce industry can get back to normal. Hopefully, this will help ensure that the public will have greater confidence in the produce industry.

A written procedure must be included in the Food Safety Plan on how the operation will track individual containers one step forward and one step back. Maintain as many detailed records as possible such as the harvesting dates, specific field and product location within the field or orchard, number of packages within a lot, packing and shipping date and harvesting crew. This information should be made available by the producer. Each container must have the name and address of the grower or if repacked the name and address of the repacker on it. The label on the box generally is sufficient to trace the product to the farm or packing house, but each wholesale box must have a harvest/packing date stamp or code with the date on the box. Placing a

label on the wrapped pallet will not meet this standard. If packing in more than one shed or packing under someone else's label, additional identification is needed to trace the product back to the packinghouse. If the containers are not labeled with the required information, a hand-labeling gun can be used to code each box where a series of numbers can identify the container. For example – 1 655616 9:

165 = (date harvested) this could be the first day a grower picked or the Julian calendar date such as 165 for June 14 or use the calendar date 614. This reserves the first 3 digits numbers for dates.
5 = (grower)
6 = (field picked or picker)
169 = (packing date)
The other numbers can be used for more information or be zeros. Record the information for each shipment.

Recall procedures must be included in the Food Safety Plan. Mock recalls should be scheduled at least every six months to ensure the system works properly. The operation must document the customers contacted, the amount of product remaining from the original shipment and the disposition of product which could not effectively be recalled. This may include sales to customers or reshipment to other customers who could be contacted if necessary. Have the customer fax the results of these conversations on their letterhead to show compliance. Auditors will review the traceback procedures and reports from the mock recall. (See Moch Traceback log)
Note: this does not mean you take control of the product. The auditors want to see if you have the ability to take control if a recall is requested!

Worker Health & Hygiene
This section requires management to describe how workers are trained and instructed to practice proper hygiene.
Example: Potable water is available to all employees in the facility. The company must document that the water was tested at least once a year and indicate it is potable or what corrective measures were taken to make it potable (See *Water source testing*

log). If municipal water is provided a copy of the test can be obtained from the municipality.

Signs should be posted at wash stations to inform employees that they must wash their hands before going to work, after breaks, or anytime they leave their work station and return (See *Please wash your hands often!).* The location of the hand washing station must be visible to the employer or supervisor. Just having a sink in the rest room is not acceptable. Signs should be posted to inform visitors that they are required to follow good hygiene/sanitation practices (See *Visitor sign in sheet* and *Health & safety notice*). Visitors can be required to sign a form listing all the requirements to enter or post a sign with all the requirements when not having visitors sign in. If the auditor observes an employee not washing their hands before beginning work or returning to work, the audit will be an "automatic unsatisfactory" and the audit can be stopped.

All employees must receive documented training on proper sanitation and hygiene practices (See *Employee food safety education and training log*). This can be through formal presentations, videos, one-on-one instruction or demonstrations. Periodic refresher or additional sessions may be needed as new employees are hired. The training should include, at minimum, methods of hand washing, method of scrubbing fingernails and proper use of toilet facilities.

The portable toilets/restrooms should be cleaned on a regular basis and properly stocked with toilet paper, single use paper towels, potable water for handwashing and soap. The use of hand sanitizers is not a substitute for soap. They do not do as good a job as soap in agricultural situations. Also, hands must be washed prior to putting gloves on hands. A supervisor should keep a record of when the facility was cleaned and by whom. If a commercial service is used to maintain the toilet facilities, make sure they record visits and do proper maintenance! In some instances, the operation will need to designate an employee to service the facilities between the commercial operators' visits. (See *Use Toilets Properly, Please put used toilet paper in the toilet* and *Restroom and toilet facility maintenance log*).

Eating and smoking must be confined to designated areas away from the receiving/loading, repacking or storage areas. The area should be separated by painted lines or partitions. Signage in packing and storage areas designating either no smoking or smoking areas is encouraged.

Workers with diarrhea disease or symptoms of other infectious diseases should not work with fresh produce. They should be given the opportunity to work in other areas if physically capable. Supervisors should encourage employees to report any illness at the beginning of the work day. A policy must be included in the Food Safety Plan on procedures if someone is sick.

Examples from Good Manufacturing Practices for food processing establishments under 21 CFR, 110.10 state "(a) Disease control. Any person who, by medical examination or supervisory observation, is shown to have, or appears to have, an illness, open lesion, including boils, sores, or infected wounds, or any other abnormal source of microbial contamination by which there is a reasonable possibility of food, food-contact surfaces, or food-packaging materials becoming contaminated, shall be excluded from any operations which may be expected to result in such contamination until the condition is corrected. Personnel shall be instructed to report such health conditions to their supervisors."

Following are some symptoms. (*See the quick reference guide for additional pathogen and symptoms)*.

Pathogens Often Transmitted by Food Contaminated by Infected Employees	
Pathogen	Symptoms
Hepatitis A virus	Fever, jaundice, vomiting
Salmonella species	Nausea, vomiting, diarrhea, fever
Shigella species	Diarrhea, fever, cramps
E. coli 0157:H7	Severe abdominal pain, watery diarrhea, vomiting
Staphylococcus aureus	Diarrhea, nausea, vomiting
Streptococcus pyogenes	Fever, Sore throat with fever

The Food Safety Plan must contain a written procedure that describes what action is taken should blood or other bodily fluid come in contact with the product, how the product will be destroyed, or removed from the area and how food contact surfaces will be cleaned and sanitized. A statement similar to the following should be included in the plan:

Blood and Bodily Fluid Procedures

When blood or bodily fluid comes in contact with produce, the product will immediately be removed from the area in sealed plastic bags and destroyed. All surfaces that came in contact with the contaminated produce will be washed to remove visible signs, scrubbed with a detergent solution, rinsed and sanitized before using those surfaces for produce.

Employees must be instructed verbally or through signs posted at various locations throughout the facility that they should seek proper first aid treatment if they receive cuts or abrasions. The responsible person should then determine whether the employee could return to their work area or be assigned to another task which does not bring them in direct or indirect contact with produce. This policy should be documented in the Food Safety Plan. **For example – employees are instructed to contact their supervisor for first aid treatment. All cuts are treated and the supervisor then determines the employee's ability to continue with their work. If the individual can return to work, the cut area is cleaned, treated, bandaged and then protected. If the hand is cut, once treated, a disposable glove is placed on the hand prior to returning to the job.**

Employees should be shown through practical application or videos the proper use of pre-harvest and/or post-harvest application materials. Any individual applying materials should have a certification or license or be under direct supervision of someone who has the license.

Once the General Question part has been audited, the auditor will calculate the score. The passing score for this part is 180 points (each part will have different points). The

auditor will first subtract any points that were not applicable (N/A) then calculate the percent score. 80% is a passing score for each part. This part must be passed before part 6 can be audited.

Mock Traceback Log

Name of Operation:_____ **Date:**_____

Conducted By:_____ **Lot:**_____

Product(s) traced:_____

Please see the food safety plan for overall traceback procedures.

Step Backward						Step Forward		
Harvest Date	Grower	Packing Date	Packer	Buyers received date	Buyers Shipping Date	Customer(s) Contacted	Amount of product remaining at customer	Disposition of product which could not be recalled

Sheet Reviewed by:_____ **Title:**_____ **Date:**_____

January 2011

RUTGERS
New Jersey Agricultural Experiment Station

Water Source Testing Log

Date	Water Source Location	Sample ID	Date Sample Sent to Lab	Lab ID	Date Results Received	Corrective Measures Needed		Date Corrective Measure Completed	Employee's Initials
						Yes	No		

Sheet Reviewed by: _____ on _____
(Management) (Date)

January 2011

RUTGERS
New Jersey Agricultural Experiment Station

Employee Food Safety Education and Training Log

Date of Training: _____ Topic: _____

Facilitator: _____

Materials Used and/or handouts (If applicable): _____

_____

	Employee's Name (Please print)	Job	Employee's Signature
1			
2			
3			
4			
5			
6			
7			
8			
9			
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11			
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13			
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15			
16			
17			
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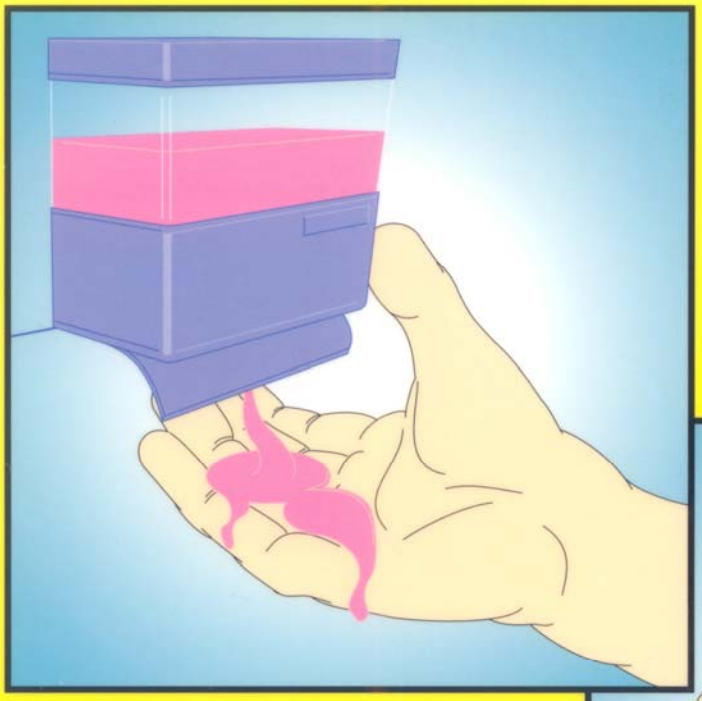
20			
21			
22			

Sheet Reviewed by: _____ on _____
(Management) (Date)

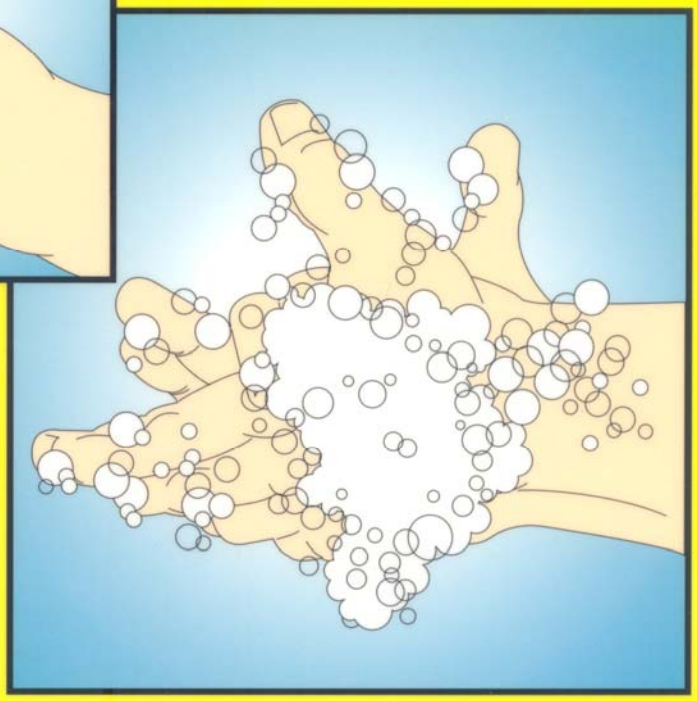
January 2011

POR FAVOR, LÁVESE LAS MANOS FRECUENTEMENTE



ANTES Y DESPUÉS

DE USAR EL BAÑO, MANIPULAR FRUTAS Y VERDURAS, COMER, BEBER, O FUMAR



BEFORE AND AFTER

USING THE TOILET, HANDLING FRUITS AND VEGETABLES, EATING, DRINKING, OR SMOKING

This poster was produced by the Good Agricultural Practices Program at Cornell University with support from USDA-CSREES and FDA Agreement No. 99-41560-0821.

PLEASE WASH YOUR HANDS OFTEN!

RUTGERS
New Jersey Agricultural Experiment Station

Visitor Sign in Sheet

Date	Time / IN	Time / OUT	Proof of ID	Purpose of visit	**Vehicle Insp.**	Employee's Initials

Sheet Reviewed by: _____ on _____
(Management) (Date)

January 2011

HEALTH AND SAFETY NOTICE

VISITORS MUST BE AWARE OF THE
FOLLOWING POINTS

- **Toilet facilities are available for your use. Please request locations.**
- **Please follow all good hygiene/sanitation practices.**
- **Make yourself aware of the emergency procedures located in the office.**
- **When walking around please be aware of forklift trucks operating.**
- **Slippery surfaces are a hazard and care should be taken while walking around the site.**
- **Watch out for trip hazards i.e. crates, and undulations in surfaces and edges of concrete surfaces.**
- **Head injuries: watch out for low pieces of tunnel/glass structures.**
- **After the visit make sure hands are thoroughly washed before eating meals.**

Sheet Reviewed by: _____ on _____
(Management) (Date)

January 2011

POR FAVOR, DEPOSITE EL PAPEL HIGIÉNICO USADO DENTRO DEL INODORO

EL PAPEL HIGIÉNICO NO ATORA LOS INODOROS

TOILET PAPER WILL NOT OBSTRUCT TOILETS

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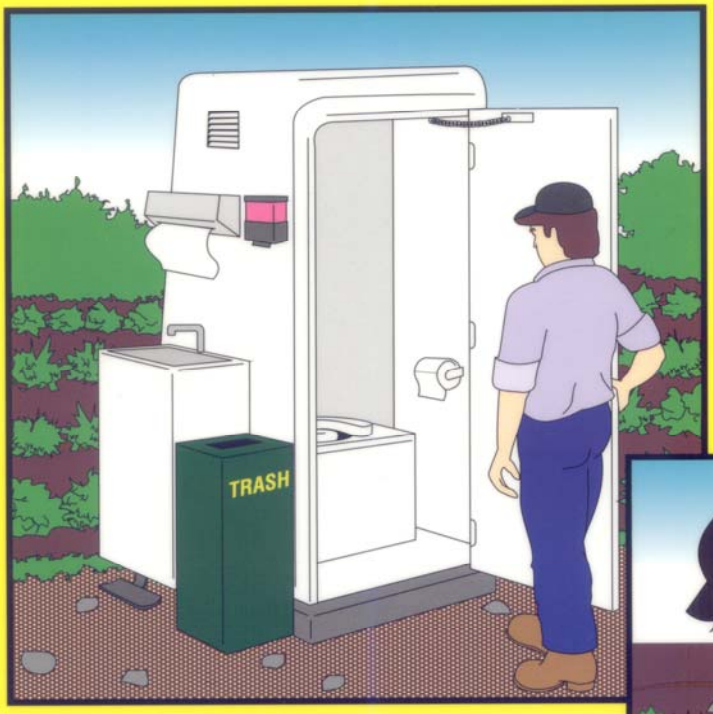
PLEASE PUT USED TOILET PAPER IN THE TOILET

PLEASE USE TOILETS PROVIDED IN THE FIELD



YES SI

NO NO

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POR FAVOR, USE LOS BAÑOS DISPONIBLES EN EL CAMPO

RUTGERS
New Jersey Agricultural Experiment Station

Restroom & Toilet Facility Maintenance Log

Location: _____

Date	Toilet & Hand Washing Facilities		Soap		Single-use Paper Towels		Toilet Paper		Trash Can		Potable Water		Employee's Initials
	Checked	Cleaned	Checked	Filled	Checked	Filled	Checked	Filled	Checked	Emptied	Checked	Filled	

Sheet Reviewed by: _____ on _____
(Management) (Date)

Note: Use a different sheet for each facility
January 2011

A Quick Reference to Bacterial, Viral and Parasitic Foodborne Illnesses

Illness and Organism That Causes It	Source of Organism	Onset (Duration) of Illness	Characteristics of Illness	Common Foods Involved	Prevention
Bacterial Foodborne Illnesses					
Intoxications					
Staphylococcal Intoxication *Staphylococcus aureus*	Hands, throats, nasal passages and sores of humans	1-6 hours (1-2 days)	Heat resistant toxin causes nausea, vomiting, diarrhea, and abdominal cramps.	Reheated foods, ham and other meats. Meat, vegetable and egg salads, cream-filled pastries and other protein foods.	Practice good personal hygiene and sanitary habits; avoid touching food with bare hands; heat, cool and refrigerate foods properly.
Botulism *Clostridium botulinum*	Soil, water sediment and intestinal tracts of animals and fish	12-48, up to 72 hours (Depends on speed of diagnosls; can last several days to a year	Neurotoxin causes dizziness; blurred vision; difficulty speaking, swallowing and breathing. Can be fatal without antitoxin	Low-acid canned food, especially home-canned products. Meats, fish, smoked and fermented fish, vegetables	Do not use home-canned foods in commercial establishments; avoid using foods from severely dented or bulging cans
Bacillus cereus gastroenteritis *Bacillus cereus*	Soil, dust, water and a variety of foods such as cereals, rice, dried foods, spices, milk and dairy products, meats and vegetables.	Two types of illness: (1) diarrhea type 6-16 hours (1day) (2) vomiting type 30 minutes - 6 hours (1 day)	(1) Watery diarrhea; abdominal cramps; no fever or vomiting (2) Nausea and vomiting; abdominal cramps and diarrhea occasionally occur	(1) Meat and vegetable dishes; casseroles, puddings, sauces and soups (2) Fried, boiled or cooked rice and other starchy foods such as macaroni and cheese	Good sanitation. Keep foods hot >140°F (60°C); cool leftovers quickly; reheat foods to 165°F (73.9°C).
Infections					
Salmonellosis *Salmonella* species	Intestinal tracts of animals, especially poultry and pigs; birds and insects; also human carriers	12-48 hours (2-6 days)	Nausea, vomiting, abdominal cramps, diarrhea, fever, and headache	Poultry and poultry products, shell eggs and egg products, milk and dairy products, meat salads, shellfish, and other protein foods.	Cook animal foods thoroughly; prevent cross contamination; cool food quickly; practice good personal hygiene.
Shigellosis (Bacillary dysentery) *Shigella* species	Intestinal tracts of humans and polluted water.	1-7 days (Up to 14 days or longer; recovery is slow)	Diarrhea with bloody stools; abdominal cramps, and fever. There may be complications in severe cases.	Foods that receive much handling including meat, vegetable and pasta salads, and raw vegetables.	Good sanitation and personal hygiene; minimize hand contact with food; prevent cross contamination.
Listeriosis *Listeria monocylogenes*	Soil, silage, decaying plant matter, water, other environmental sources; intestinal tracts of animals	1 day - 3 weeks (Depends on treatment, but has a high fatailty rate in immuno-compromised individuals)	Mild flu-like symptoms in healthy individuals; in immunocompromised individuals, meningitis and blood poisoning occur; abortion in pregnant women	Raw milk and cheese made from raw milk, meat and poultry, raw vegetables	Good sanitation; use only pasteurized milk and dairy products; cook food thoroughly; keep foods below 40°F (4.4°C); prevent cross contamination.
Yersiniosis *Yersinia enterocolitica*	Soil, untreated water, intestinal tracts of animals especially pigs.	24-28 hours (2-3 days; some longer)	Fever, abdominal pain, diarrhea, nausea and vomiting; pseudo-appendicitis; complications can occur in severe cases	Meat and meat products, especially pork; milk and dairy products; seafoods and fresh vegetables	Good sanitation; use only pasteurized dairy products; cook foods thoroughly; keep foods below 40°F (4.4°C); prevent cross contamination

A Quick Reference to Bacterial, Viral and Parasitic Foodborne Illnesses

Illness and Organism That Causes It	Source of Organism	Onset (Duration) of Illness	Characteristics of Illness	Common Foods Involved	Prevention
		Infections (continued)			
Campylobacteriosis *Campylobacter jejuni*	Soil, sewage, untreated water, intestinal tracts of chickens, turkeys, cattle, pigs, rodents, and some wild birds	2-5 days (5-10) days; relapses are common)	Fever, headache, nausea, muscle pain and diarrhea (sometimes bloody)	Undercooked meat and poultry, and raw milk	Cook animal food thoroughly; cool foods quickly; prevent cross contamination
Hemmoraghic colitis *E. coli 0157:H7*	Intestinal tracts of animals, particularly cattle, chickens, pigs and sheep	3-9 days (2-9 days)	Severe abdominal pain, watery diarrhea which becomes bloody and vomiting may occur; dehydration; severe complications can result.	Raw or rare meats especially ground beef; raw milk and dairy products	Cook meats thoroughly; prevent cross contamination; keep food below 40°F (4.4°C)
Vibrio parahnemolyticus gastroenteritis *Vibrio parahaemolyticus*	Estuaries and salt water	2-48 hours (2-3 days; can be longer)	Diarrhea, abdominal cramps, nausea, vomiting, headache, fever, and chills	Raw fish or inadequately cooked seafood; clams, oysters, crabs, shrimp and lobster	Cook all seafood thoroughly; prevent cross contamination; keep foods below 40°F (4.4°C)
		Toxin-mediated Infection (Toxicoinfection)			
Clostridium perfringens gastroenteritis *Clostridium perfringens*	Intestinal tracts of humans and animals, soil, dust water	8-24 hours (12-24 hours)	Diarrhea, intense abdominal pain; occasional vomiting	Improperly prepared, held, cooled, or reheated meat and poultry, stews, gravies, soups, sauces and casseroles.	Cook foods thoroughly; cool foods quickly; hold hot foods above 140°F (60°C); reheat leftovers to 165°F (73.9°C)
		Viral Foodborne Illnesses			
Infectious Hepatitis *Hepatitis A virus*	Infected workers, contaminated water, shellfish from contaminated water	15-50 days (weeks/months) 1-2 weeks to several months in severe cases	Fever, nausea, vomiting and abdominal discomfort, appetite loss, fatigue, followed by jaundice	Foods not cooked after handling such as bakery products, luncheon meats, salads, sandwiches, fruits; raw oysters and clams; water	Good personal hygiene; hand contact with food; cook all foods properly, especially seafood; separate infected persons from food preparation
		Parasitic Foodborne Illnesses			
Giardiasis *Giardia Lamblia*	Contaminated water or food, intestinal tract of animals and humans	7-10 days 2-6 weeks (if untreated recurs in several months)	Diarrhea, abdominal cramps, nausea, fatigue, bloating, flatulence and weight loss	Foods handled frequently during preparation; contaminated water	Good personal hygiene; good sanitation; heat untreated water to a rolling boil for at least 3 minutes
Trichinosis *Trichinella spiralis*	Muscle of meat-eating animals, especially pigs and bears	onset: 3-30 days Symptoms can last 5-8 weeks; excepted larvae may persist for years in muscle	Nausea, vomiting, diarrhea and abdominal pain followed by fever, puffy eyes, sweating, weakness and muscle pain; myocarditius and other complications can result	Raw and undercooked pork and other animals such as bear and walrus	Cook all pork products thoroughly to 160°F-170°F; freeze suspect meat products at -10°F for 10-20 days before cooking; prevent cross contamination

Source: Robert B. Gravani, PhD, Department of Food Science, Cornell University. Adapted from R.B. Gravani, *Dairy and Food Sanitation* 7(2):77-82, 1987. National Restaurant Association, *Applied Food Service Sanitation,* 4th Ed., John Wiley and Sons, Inc., NY, 1992. M.P. Doyle, *Foodborne Bacterial Pathogens,* Marcel Dekker, Inc., NY, 1989