



Conducting a Mock Recall of Produce in a School Nutrition Operation

Introduction

A food recall occurs when there is reason to believe that a food may cause consumers to become ill. A food manufacturer or distributor initiates the recall to take foods off the market. In some situations, food recalls are requested by government agencies (USDA or FDA). Some reasons for recalling food include:

- Discovery of an organism in a product which may make consumers sick.
- Discovery of a potential allergen in a product.
- Mislabeling or misbranding of food.
- Physical hazards found in the product, such as plastic, glass, metal, etc.

Food recalls are classified in three classes. The following table describes the three classes of food recalls:

Class	Definition	Examples
Class I	A health hazard situation where there is a reasonable probability that eating the food will cause serious, adverse health consequences or death.	<i>E. coli</i> O157:H7 in bagged spinach; <i>Salmonella</i> in tomatoes
Class II	A health hazard situation where there is a remote probability of adverse health consequences from eating the food.	Product containing a foreign material
Class III	A situation where eating the food will not cause adverse health consequences.	Food product not labeled correctly

From 2005 to 2009, there was an average of more than 600 food recalls per year in the U.S. food system. This estimate includes both domestic and imported products. Fresh fruits and vegetables, and prepared salad mixes made up 15 % of recalls during this time period (Congressional Research Service, 2010). Food recalls may affect foods used in school meal programs that are distributed by USDA, or a purchased from a commercial source.

School nutrition program staff are responsible for maintaining the safety and security of foods once they are received and stored. Maintaining the chain of custody also is an important responsibility of school nutrition program operators because it allows food products to be traced one step back to the vendor and one step forward to the consumer. In the event of a recall, a food product must be traced to its current location, and schools are to follow the recall procedures outlined in the manufacturer's instructions, or sent by USDA. To respond to recalls of commercially purchased foods, you can be proactive and expedite the process by signing up to receive food recall notifications from the federal government at www.foodsafety.gov/recalls.



If a recall affects a USDA Food, you also can sign up for free email notifications through the Commodity Alert System at www.envoyprofiles.com/USDA-ALERTS.

This mock recall resource provides instruction on how to practice conducting a school district-wide recall of fresh produce. Many other produce safety training materials have been developed by USDA and the National Food Service Management Institute. These materials may be found at www.nfsmi.org/producesafety. The goal for this activity is to encourage school nutrition program directors to conduct a district-wide mock recall of a fresh produce item that includes the participation of all school site kitchens and fresh produce distributors. Select a fresh produce item, or fresh-cut produce item for this exercise. You can adapt this resource to conduct a mock recall of other types of food, including canned and frozen produce, or any other food.

Conducting an Effective Mock Recall

Through a mock food recall, a school nutrition program can test its response time and identify any weaknesses in the program's ability to respond to food recalls. Iowa State University Leopold Center for Sustainable Agriculture recommends that growers conduct a timed mock recall annually. The National Restaurant Association Educational Foundation's ServSafe® training program recommends that restaurant operators test their crisis management plans at least annually. School nutrition program directors should test, on an annual basis, their ability to respond to food recalls and identify areas that need improvement.

A mock recall is a simulated recall exercise with a designated time limit (Grower's Manual: A template for grower cooperatives, 2011). The amount of time that would be realistic and appropriate varies from school district to school district. School nutrition program directors and/or supervisors should be responsible for setting a realistic target for the amount of time to conduct the mock recall exercise in their district. Examples of factors that might affect response time include district size, amount of produce involved, and type of notification system used.

The following steps outline how to conduct a mock recall of a fresh produce item in a school nutrition operation:

Step Review Applicable Standard Operating Procedures (SOPs)

- 1**
 - Review all SOPs that pertain to food recalls. These may address procedures for handling a recall, receiving deliveries, or transporting food between sites.
 - Update SOPs, if necessary.
 - Communicate updated SOPs to school nutrition staff, if necessary.
 - Conduct this step at least one month prior to the planned exercise.

Step Review Emergency Notification Contact List

- 2**
 - Create or update the school district's and school nutrition department's emergency notification lists to be used in the event of a recall. The lists should include phone numbers and email addresses where staff can be reached both during and after regular work hours.
 - Distribute the updated emergency notification contact list to school nutrition program staff at the beginning of the school year, or at any time that staff or contact information changes. In an effort to conduct an unannounced mock recall, distribute the revised emergency contact list at least one month prior to exercise.

Step 3 Planning the Mock Recall

All communications should begin with “This is a test.” Begin all phone calls, emails, or anything else in print with “This is a test.”

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- Conduct a review during training at the start of the school year, or at least one month prior to the mock recall exercise. During this review, discuss SOPs that address food recalls with all school nutrition staff at the district and school levels and warehouse personnel, if applicable. Any school personnel who have a role during a food recall should be included in the review.
- Determine which produce item will be used in the recall simulation. You may want to include your vendor when making this decision. For fresh produce mock recalls, select a fruit or vegetable that is typically ordered weekly by the school district for use at all school sites, such as salad greens. If seasonal produce is selected, choose a product that will be shipped to all or a majority of schools.
- Identify the date and time that the mock recall will take place within the school district. Although it may be more convenient to conduct a mock recall at certain times because of staff and production schedules, remember that an actual recall could take place at any time of day. By conducting the exercise at unannounced and unpredictable times, you will be able to determine more accurately how long the response might take during an actual recall.
- Set a goal for the amount of time that it should take to identify the locations of all recalled product. Again, the time may vary depending on factors such as district size, day and time of recall, amount of produce affected, and type of communication used in notification.
- Inform school district administrators, including the district’s communications officer and emergency manager, that a mock recall of produce will be conducted. Provide administrators with information on the date(s), time(s), and location(s) of the mock recall exercise. Communicate that the mock recall is only a drill to test the district’s response time and recall procedures, and that produce served to students during the drill is safe to eat.

Step Conduct the Mock Recall*

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- Identify the date and time of the mock recall. Performing the exercise at unannounced, unpredictable times will result in a more accurate test of the school nutrition program's recall response capability.
- Place the produce order as usual. Be sure that the vendor knows that "this is a test."
- Get produce tracking information from the produce vendor including:
 - Produce name/description.
 - Produce identification numbers (product code, Lot/Batch number, or GTIN, if available) and where they are located on product packaging.
 - Produce date(s) (examples: ship date, best if used by, or expiration date).
 - Quantities shipped to each school.
 - Photograph of labeling containing identification numbers and dates, if possible
- Record the start time of the mock recall.
- Communicate the produce recall to all necessary personnel at each school site. Follow the SOPs. Be sure to convey that "this is a test."
- Identify the amount of the produce found at each site. Be sure to record the amounts found in inventory, food production, and served to children from all feeding sites. The attached worksheet is a sample form that may be used to record information.
- For each school, compare the amount of produce that was received to the amounts in inventory, in production that day, and produce already served, as reported by the site staff.
- If the total amount of produce reported does not match the amount received, contact the school to find out why too much or too little product was identified. Reasons might include the following:
 - More or less produce was received than ordered.
 - The school also had the same item on hand from another source (such as a local farm) that was counted in recall.
 - Leftovers from the previous week were counted in recall.
 - Production records were not accurate.
- Once produce has been accounted for at each school, record the ending time and calculate the total amount of time it took to conduct the mock recall exercise.

*Conduct this mock recall according to your SOP. If the SOP states that the vendor or warehouse will communicate recall information and provide product identification directly to school sites, work with your vendor or warehouse to establish mock recall procedures and documentation.

Step Mock Recall Debrief

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- Determine who should participate in the mock recall debrief. Suggested attendees include: School nutrition director, central office supervisory or training staff, manager(s), and administrative assistant(s).
- Determine whether the mock recall was completed within the timeframe identified in advance of the exercise.
- Identify weaknesses or problem areas in your mock recall exercise.
- Weaknesses might include:
 - Produce was delivered in untraceable packages or containers.
 - Produce was commingled with other product.
 - Produce was taken out of original packages or containers and labeling information was lost.
 - Unable to contact school personnel.
 - School personnel were slow in responding or not responsive to requests for recalled produce information.
 - School personnel were unsure of how to identify produce tracking information on packaging.
 - The amount of produce received by sites did not match the amount of produce found in inventory, production, or already served.
- Identify corrective action(s) needed to improve recall procedures. Develop a plan to implement corrective action(s), including person(s) responsible and a timeframe. An example is provided in the case study.
- If necessary, revise SOPs or conduct staff training related to food recalls based on the outcomes of your mock recall.

Mock Recall Effectiveness

The effectiveness of the mock recall exercise can be measured by using a simple formula. Upon completion of the recall, calculate the effectiveness to determine if corrective action is needed.

Recall effectiveness formula:

- A Amount delivered _____
- B Amount in inventory _____
- C Amount in food production _____
- D Amount served or consumed _____

$$\% \text{ Mock Recall Effectiveness} = \frac{(B+C+D)}{A} \times 100 =$$

Example:

- A Amount delivered 42 cases
- B Amount in inventory 35 cases
- C Amount in food production 4 cases
- D Amount served or consumed 1 case

Formula: $35 + 4 + 1 = 40$ cases divided by 42 cases $\times 100 = 95\%$

Effectiveness should be calculated first by site, then by district. If the mock recall is less than or greater than 100% effective, identify what caused the discrepancy and determine appropriate corrective actions. When all of the produce is not identified, the recall effectiveness will be less than 100% effective. In a real recall situation, the unaccounted for produce may already have been served or potentially could be served in the future, resulting in increased risk and possible harm. If more produce is identified than was delivered, the recall effectiveness will be greater than 100%. Operators may think it is not a problem to identify more produce than what was recalled, but the inability to trace the actual recalled produce shows that the system is not working properly. Both outcomes result in a loss of traceability and increased risk of serving, or consuming, recalled food in the event of an actual emergency.

Conclusion and Next Steps:

Upon completion of the mock recall, the school nutrition program director, supervisors, if applicable, and other necessary staff should discuss and identify corrective action steps. After this mock recall another exercise should be planned, even if the effectiveness was 100%. Consider using different products; choose a different day of the week and a different time of day.

While this resource provides information needed to conduct a mock recall of produce received from a distributor, consider all of your produce sources, including local farms, fresh-cut processors, produce cooperatives, and school gardens. Consider conducting a mock recall of produce from each of your produce sources.

Conducting a Mock Recall of Fresh Produce: A Case Study

October 14



ABC School District's school nutrition program is planning a district-wide mock recall of a fresh produce item. The school district operates 18 sites with approximately 15,000 students. Seventeen schools have on-site kitchens, and one school has only storing, reheating, holding, and serving capabilities. ABC School District's high school kitchen prepares approximately 300 meals per day, using bulk service, for the school site without on-site preparation capacity. The produce distributor delivers weekly to the 17 on-site kitchens. Each site manager places his or her produce order every Wednesday for delivery on the following Tuesday.

During the previous summer, the school nutrition director reviewed and updated the following SOPs:

- Handling a Food Recall
- Receiving Deliveries
- Storing Foods
- Transporting Food to Remote Sites

The director also updated the emergency notification contact list based on information requested in end-of-year documents in June. There were no personnel changes over the summer.

At the annual "Back-to-School" workshop for site-level managers held in August, the school nutrition director handed out and discussed the updated SOPs. In addition, managers were given the emergency contact list and asked to review, update, and send the revisions to the central office within one week. The final emergency contact list was emailed to all site-level managers by the first day of school.

One month later, the school nutrition director contacted Star Produce Company, the district's produce vendor, to discuss conducting a mock recall of fresh produce. Pre-cut salad mix was selected as the item to be used in the exercise because the majority of schools purchased this item weekly. The vendor confirmed that the company would be able to provide tracking information using product code numbers, including lot number, best if used by date, ship date, and quantity shipped to each site.



The school nutrition director and central office staff met and identified Thursday, October 13th at 11:00 as the date and time for the mock recall. All site-level staff were unaware of the mock recall. The school nutrition director and central office staff chose this date and time to test recall procedures because it would be inconvenient for site-level staff who were participating in National School Lunch Week, where most of the schools promote increased participation in school lunch and encourage health and wellness. The time was selected because the majority of sites serve lunch at 11:00 am. The goal for completing the recall exercise was set at three hours, or by 2:00 pm (the end of the work day).

The school nutrition director contacted school officials, including the communication's officer and emergency manager to inform them of the upcoming mock recall of produce and to assure them that the produce would be safe. The school nutrition director emphasized that the scheduled recall would only be a drill to determine how quickly staff at the schools could locate the product and evaluate the effectiveness of existing procedures.

On the day produce was delivered, the distributor provided the school nutrition director with the tracking information via fax as requested in advance of the exercise. The school nutrition director made a copy for the school nutrition administrative assistant, as well as a copy of the recall worksheet. The school nutrition administrative assistant emailed all school nutrition site managers and notified them of the pre-cut salad mix recall as outlined in the Handling a Food Recall SOP and reminded them that "this is a test." At noon, the administrative assistant called all managers who had not yet responded. Voice mail messages were left for the seven managers who had not responded either via email or phone. Three of the seven responded by 12:30 pm. The administrative assistant emailed the remaining four managers at 1:00 pm. By close of day, 2:00 pm, all but one manager had responded to the recall notification. The central office did not get the recall information from the last school, George Washington Elementary, until the following morning.



The school nutrition director learned that the response from George Washington Elementary was delayed because the manager was out and did not report his absence to the central office. No one at the site had access to the manager's email or phone messages. The central office had not included contact information outside of the work day on the emergency contact list.

The following day, the school nutrition director calculated the mock recall efficiency at 88%. One site did not respond at all, and three sites could not locate some of the product. These three sites had difficulty because the salad mix had been commingled, and the boxes with the tracking information were discarded. Also, product transported to the satellite site was not recorded and could not be traced.

A	Amount delivered	<u>42 cases</u>
B	Amount in inventory	<u>32 cases</u>
C	Amount in food production	<u>4 cases</u>
D	Amount served or consumed	<u>1 case</u>

$$\frac{(B+C+D)}{A} \times 100 = \% \text{ Mock Recall Effectiveness}$$

$$32 + 4 + 1 = 40 \text{ cases divided by } 42 \text{ cases} \times 100 = 88\%$$

During the debriefing, the school nutrition director and central office staff identified several corrective actions that would improve their crisis management of a food recall. Staff members were assigned responsibilities with clear timelines to complete these next steps.

- Update the emergency contact list to include how to reach staff outside of school.
- Review Handling a Food Recall SOP at upcoming manager's meeting, including timely response.
- Review manager absence notification procedures at upcoming manager's meeting.
- Identify a key person at each site who is responsible for checking phone messages in the event of a manager's absence.
- Create a school district email address for key personnel at each site.
- Review Storing Foods SOP at upcoming manager's meeting, including maintaining tracking information and preventing commingling of product in storage.
- Plan a future mock recall of fresh produce within three months to retest the system.

Corrective Action	Person(s) Responsible	Timeframe
Update emergency contact list	School nutrition director and administrative assistant	October 28 (2 weeks)
Identify a key person at each site who is responsible for checking phone messages in the event of a manager's absence	School nutrition director, all managers	October 28 (2 weeks)
Create an email address for key personnel at each site.	School nutrition director, all managers, technology department	November 6 (3 weeks)
Review SOP for handling a food recall	School nutrition director, all managers	Next manager's meeting (November 15)
Review manager absence notification procedures	School nutrition director, all managers	Next manager's meeting (November 15)
Review storing foods SOP	School nutrition director, all managers	Next manager's meeting (November 15)
Determine date for next mock recall and coordinate with produce vendor	School nutrition director and central office staff	Next manager's meeting (November 15)

Glossary

Commingling: Combining different sources (i.e. lots or batches) of produce into one container. Traceability may be impaired.

Global Trade Item Numbers (GTIN): The GS1 Identification Key used to identify products such as a specific brand and product. The key is comprised of a GS1 or U.P.C. company prefix and an item identification number.

Lot: The batch or lot number associates an item with information the manufacturer considers relevant for traceability e.g., the time and date it was manufactured.

Recall: A process used to remove products from the marketplace when there is reason to believe the products may be contaminated, misbranded, or cause health problems.

Standard Operating Procedure (SOP): Detailed written instructions for a process that must be followed to ensure a desired outcome.

Traceability: The ability to trace the origin, movement, or location of a product.

Trace or track back: The ability to determine the path a product took through the supply chain before it reached the end customer.

Trace or track forward: The ability to determine the path a product takes through the supply chain on its way to the end customer.