Title: PSU Take-Home Training for Professional Standards: Receiving and Storing

Credit: 1 Hour, 30 Minutes

Codes: 2520, 2620, 2600

Edition: 2017

Materials Needed:

Produce Storage Chart*; handouts for participants*
http://nfsmi.org/documentlibraryfiles/pdf/20110729103550.pdf

Receiving and Storing Presenter Notes:

Slide 1:

Cover slide

Note to instructor: Welcome participants to this training session.

Slide 2:

Note to instructor: Review the learning objectives with the participants.

Slide 3:

After the school district's produce specifications have been written and the produce has been ordered, staff members need to know how to receive and inspect deliveries. Receiving is checking that what was ordered – quantity and quality – was delivered. The only way to know for sure that you are getting your money's worth is to open boxes and take a look. You don't necessarily need to open every box every time, but you should demonstrate to delivery personnel that you are willing to do so. Produce in boxes that appears damaged or tampered with should be carefully checked. Delivery personnel will learn that your operation is inspecting produce at delivery, and you may notice that produce quality improves as a result.

It is important to reject delivery of items if they do not match your specifications, even if the delivery person is pressuring you to hurry. While rejection of a delivery may create

short term problems, in the long run, you will find it pays off. Delivery personnel do not like to return produce to the warehouse, so they may start to send you better produce.

Inspect produce at receiving based on your written specifications. Verify the quantity received with your order sheet, not the vendor's. Check for quality and safety attributes including temperatures. Certain fresh produce items should remain refrigerated at all times, such as lettuce, leafy greens, and all fresh-cut or ready-to-eat produce, so inspect those items first in order to place them into storage immediately. Check the "best if used by" dates on all produce at receiving. Your specifications may require a certain number of days remaining before the best if used by date. Reject any produce that does not meet the specifications. Make sure that your staff knows what is acceptable, and what is not.

Slide 4:

The produce size, quality or grade and appearance, variety or type, and quantity should be reviewed to make sure you are getting what you ordered based on your specifications.

For some products, the size is based on the number or count that can fit into the case. For example, there are 125 apples in a box labeled "125 count." The quality, grade and appearance must be checked at receiving. The produce will not get better looking as time goes on. Always check the quantity of the produce that is actually delivered against the produce order, not just the invoice. Do not sign the invoice until all items are accounted for.

Slide 5:

Check temperatures of refrigerated produce items, especially fresh-cut produce. The temperatures of those products affect both the safety and quality. Remember, cut melons, cut tomatoes and leafy greens must be received at or below 41 °F.

All produce should be kept cool; warm temperatures hasten quality deterioration of products.

Slide 6:

There are different types of thermometers that can be used. An infrared thermometer checks surface temperatures, which may be best for delicate produce like strawberries. Take temperatures with an infrared thermometer at several points. While this thermometer will not provide an accurate reading of the product's internal temperature, it can serve as a screening tool and help avoid issues related to cross contamination from the thermometer.

If you use a calibrated bimetallic-stemmed or probe thermometer, to test the temperature of pre-cut, or pre-washed produce, do not pierce the bag. Instead, hold two bags close together, or lay one on top of the other, and place the thermometer sensor between the two bags. Be sure to record temperatures on logs for your records.

It is not as important that whole non time/temperature control for safety (TCS) items, such as apples, oranges, or vegetables be at or below 41**°**F. Produce distributors store product under commodity specific temperatures and humidity conditions. They may store some produce at 45**°**F, and some of it at 55**°**F, depending on the product. It is not necessary to check product temperatures on every case of these produce items, because temperatures above 41**°**F will not affect food safety. Bananas, for example, develop chilling injury, so are usually held at 55 degrees in produce warehouses. They are stored in plastic inside the box to keep them from getting too cold.

When everything is delivered on the same truck, the ambient temperature in the truck may not be at 41**°**F or below when it arrives. The temperature will change every time the truck door is opened. If the ambient temperature is not at or below 41˚ F, the product is probably acceptable, so it is not necessary to reject the whole load. However, make **sure** that the temperature of your fresh cut products are at 41°F or below when they arrive at your back door.

Slide 7:

Another important task at receiving is to check the “best if used by” dates on fresh-cut produce. A “best if used by” date is the manufactures’ estimate of how long the item will maintain its quality. Your specifications may provide a required shelf life for your fresh-cut products, typically 5-7 days. This is a best practice. You certainly would not want to accept fresh-cut lettuce with a “best if used by date” of tomorrow.

While the “best if used by” date is a guide, you cannot fully rely on this as an indicator of quality. Not all produce contains a “best if used by” date. This was the shelf life estimate at the time the product was packaged. Fresh-cut produce that has been mishandled or temperature- abused may not be acceptable for the length of time stated on the package. Remember that the maximum shelf life listed on the packaging is based on ideal conditions regarding temperature, humidity, and other factors. Your produce may not actually last that long, depending on how it was handled during storage and transportation before it got to your dock, and how you handle it once it is in your operation.

You will need to take a very critical look at all of the produce items in your delivery and decide how quickly they should be used, even if it means using the new product before those already in storage. Not every type of produce comes with a date marked on it. For these items, you need to make a quality assessment to determine how long this product might last and whether you will be able to menu it before it becomes unusable.

This is why it is important to date boxes when they arrive at your kitchen before placing into storage and to rotate inventory.

Slide 8:

If you receive produce that does not meet standards identified on the specifications, send it back. Accepting poor quality produce will reduce the eye appeal of fresh fruits and vegetables on your serving line. Plus, your food cost will increase as you throw out poor quality produce that you are unable to serve. The only way to know if it meets your specification is to inspect it thoroughly. Don't be pressured by delivery personnel who are in a rush. Remember, the food is still in the custody of the vendor until the invoice is signed.

If you are a manager or supervisor, it is your job to make sure that the staff responsible for receiving knows feel empowered, know what the standards are, and what to do if they think a delivered product needs to be rejected. If your staff is uncomfortable or unsure of how to tell when something should be rejected, retraining may be necessary. Explain that poor product quality not only affects customer service, but also the bottom line, and their ability to provide a quality meal.
Don't forget to weigh some of the containers for weight, if marked. If the cases should weigh 25 lbs. weigh a few to make sure.
Also, open a few containers to check the bottom, many times produce with more defects will be "hidden" in the bottom of a box.

Slide 9:

It is important to write the date you received each produce delivery on every item or case. This practice will help you with FIFO (First In; First Out) inventory rotation, and tracking the product in the event of a food recall, or in case there are any questions.

Helpful hint: (Mark the receive date using a Julian date) example- January 1 would be 001, January 15 would be 015. This helps alleviate the reference to a use by date.

Slide 10:
We will now watch a video that will show us how to properly receive produce.

Note to Instructor: Play the video on the slide. If desired, you may allow for a short discussion.

Slide 11:

Now, we're going to talk about storing produce. In particular, optimal storage location for temperature and conditions to give you the longest shelf-life possible on your products and allow for proper product traceability.

Slide 12:

The shelf life of fresh fruits and vegetables depends on the condition in which it was received, and how the produce is stored in your kitchen. Each produce item has specific storage recommendations to maintain quality. Generally, there are two storage location categories: refrigerated storage, or dry storage, which is at room temperature.
Some produce, like apples, may be stored in the refrigerator or at room temperature, although storing apples at room temperature will hasten deterioration. Apples may last five times longer in the refrigerator.

Other produce items are dependent on the correct temperatures for safety reasons. Leafy greens, cut tomatoes, cut melons, and other fresh cut produce should be stored in the refrigerator.

Berries, carrots, cauliflower, broccoli, fresh herbs, lettuce, peppers, and mushrooms will also last longer in cooler temperatures. Tomatoes, onions, garlic, watermelon, potatoes, and winter squash can be stored in dry and cool storage locations. Tropical fruits, such as bananas or mangos, and pitted fruits, such as peaches, should be stored at room temperatures in designated locations. Potatoes become sugary and mealy, and tomatoes lose their signature acidic bite when stored below approximately 50 °F. Potatoes should be stored in a dark area to prevent greening. The skin of bananas will turn very dark in the refrigerator. Although the inside is delicious, the outside is very unappealing. Un-ripened fruits ripen, very slowly under refrigeration, so the bottom line is not to put everything in the cooler or refrigerator.

Slide 13:

Some produce, especially fruits, release ethylene gas to help ripen the fruit. Ethylene is an odorless, colorless gas. Have you ever ripened an avocado or a pear at home by putting it in a paper bag with a ripe banana? The pear will ripen because the banana is naturally releasing ethylene gas. Commercially, ethylene gas is introduced to uniformly ripen avocados, bananas, mangoes, and tomatoes.

Unfortunately, ethylene gas may damage other produce, particularly vegetables. Here are some examples of damage that can be caused by ethylene gas—russet spotting on lettuce, bitter taste in carrots, yellowing of broccoli, cucumber, and spinach, and an overall decreased shelf life. Bottom line, some produce actually release ethylene and some have varying degrees of sensitivity to it, so storing them together has an effect.

Slide 14:

To help control ethylene gas, fruits and vegetables should be stored separately. Store fruits on one side of the refrigerator and vegetables on the other side. Ideally, you

would have a refrigerator for fruits and one for vegetables, but that is not always possible.

Note to Instructor: Hand out the "Produce Storage Chart" document to participants. It contains the Ethylene producer and sensitive produce commodities.

By taking ethylene gas into account when making a storage plan, you can increase the shelf life of your produce.

Slide 15:

First In; First Out, sometimes referred to as FIFO is an inventory rotation system based on using the oldest item in storage first. For most products this practice holds true. However, fresh produce depends on the condition in which it was received. Local farmers will generally harvest and deliver product within a day or two, whereas the wholesale production system is set up to allow for greater length of time between farm to foodservice. Thus, it may be possible that strawberries delivered by a local distributor to your school on Thursday will not last as long as the strawberries delivered on Tuesday by your local farmer. In this situation, you should plan to use the ripest and most perishable fruits and vegetables **first**. This type of rotation is known as First Expired; First Out or FEFO.

Slide 16:

No matter where produce is stored, it should be at least 6 inches above the floor to protect it from splash and contamination. Always store produce in a way that prevents cross contamination. For example, store fresh produce above raw meats, poultry, and eggs as there will not be a kill step by cooking for the fruits and vegetables and you don't want raw meats to drip on the ready-to-eat produce. Be sure all food storage areas are kept secure and access is limited to foodservice personnel in order to avoid giving access to anyone who might intentionally contaminate the food.

Slide 17:

We will now watch a video that will show us how to properly store produce.

Note to Instructor: Play the video on the slide. If desired, you may allow for a short discussion.

Slide 18:

Be sure to take and record refrigeration temperatures at least every 24 hours, unless a continuous temperature monitoring system is available. Some school nutrition programs require that the temperature is recorded when staff first arrive at work and

before they leave at the end of the day. If the temperature is too high, take corrective action as identified in your school's food safety program. It is your responsibility to maintain the quality and safety of produce and all food while it is in your custody, and during service to children.

Slide 19:

It is important to maintain traceability in case of a hold or recall on produce. When you receive the produce you should make sure that the date received is marked on the box and in your records. You should keep record of your supplier, the quantity received, the brand of the produce, and the product code, lot number, and pack dates. If you transfer the produce to another box or storage container, make sure that this identifying information is moved along with the produce to which it applies. You should avoid storing produce from different sources together, because this can make it very hard to identify which food is problematic or dangerous in the case of a hold or recall.

Slides 20-25: Transition to Activity

Note to Instructor: After each video, ask your class "What went right?" or "What went wrong?" as appropriate. Ask them to supply answers based on what they saw in the video. Make sure that you cover the key points listed below. You can use the checklist to keep track of the answers that your participants have supplied, and then mention any remaining observations before moving to the next video.

What went Wrong: **Receiving Produce:**

 Produce is delivered in a non-refrigerated vehicle.
 The back door is unlocked.
 Drink crates near the back door may attract pests into the facility.
 Tomatoes are delivered in an untraceable container; the bag is damp.
 Tomatoes are dropped by delivery person.
 The driver is sick; he touched the tomatoes and rubbed them on his clothing.
 The produce is not inspected during receiving for the following concerns:
a. Receiving temperatures.
b. Product quality.
c. Product damage.
d. Traceable packaging.
e. Quantity ordered.

What went Right: **Receiving Produce:**

 Produce was delivered in a refrigerated vehicle.
 The back door was locked. The driver had to ring the call button for entry.

 The loading dock and back door area were free from clutter, including milk crates.
 The manager washed her hands prior to receiving produce.
 Produce was inspected during receiving to check the following:
 Safe receiving temperatures
 Product quality
 Product damage
 Traceable packaging
 Quantity ordered
 The manager returned the cantaloupes for credit because the quality was unacceptable.
 The manager weighed the case of tomatoes to make sure that the amount ordered was received.
 The manager inspected the tomatoes for quality and accepted them after confirming that the case weighed the correct amount (25lbs).
 The manager took the temperature of the pre-cut lettuce using a calibrated, bi-metallic stemmed thermometer. She placed the thermometer between the two bags to prevent puncturing. The manager identified the temperature as 40 degrees F. The quality was also acceptable, so the lettuce was received.
 The manager inspected a case of oranges for quality. A few oranges were moldy. The driver replaced the case of moldy oranges with another case of oranges that the manager inspected and accepted.
 The manager inspected and received a case of baking potatoes.

What went Wrong: **Storing Produce:**

 The walk-in refrigerator temperature 53° F.
 The day (Tuesday) only is used for marking the receiving date on produce.
 A cantaloupe is severely damaged. This cantaloupe may already be contaminated, or may become contaminated during storage.
 Is the cantaloupe discarded, or culled and used in food production?
 The produce delivery is never inspected.
 Fresh produce is stored under shell eggs.
 Kiwi and tomatoes are stored in untraceable containers.
 The kiwi is removed from the delivery container and placed on parchment paper directly on shelving.
 The kiwi is stored next to shell eggs.
 Potatoes are stored on the floor instead of 6 inches off of the floor.
 Potatoes are not stored according to FIFO; they are labeled with the day of the week instead of date.
 The employee is wearing jewelry that may not be approved in the dress code policy.

Non-food safety issues participants may identify:
 The employee may have strained her back due to improper lifting technique.
 The cantaloupe not returned nor is credit received.
 Potatoes are stored without regard to recommended storage temperatures.

 Some items are stored without regard to ethylene gas damage; the lettuce is stored between apples and cantaloupe.

What went Right: **Storing Produce:**

 The employee properly dated the following produce items and placed them in the appropriate storage location:
 Potatoes were placed in the dry storage area.
 Lettuce was placed on the shelf with other vegetables.
 Tomatoes were placed on the shelf with other fruits.
 Oranges were placed on the shelf with other fruits.
 The employee transferred tomatoes remaining from the previous week to a storage container. The employee removed the product label from the box and placed it in the storage container so that tracking information would be available if the tomatoes were recalled.
 The employee practiced FIFO (First In; First Out) properly by placing the old tomatoes in front of the new tomatoes on the storage shelf.
 The employee stored fruits and vegetables separately to prevent the ethylene gas produced by fruits from reducing the shelf life of vegetables.
 The employee stored fruits and vegetables away from raw meat, poultry and eggs to prevent cross contamination.
 The employee recorded the walk-in refrigerator storage temperature. The temperature was 39 degrees, so no corrective action was needed.