



Slide 1:

Cover slide

Notes to instructor: Welcome participants to this training session. If this session is part of a larger workshop, tell the participants in this next session, receiving and storing fresh produce best practices will be presented and discussed.

Slide 2:

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

Slide 3:

Once the school district's produce specifications have been developed and produce ordered, staff needs to be ready to receive and inspect the delivery. The only way to know you are getting your money's worth is to open the box and take a look. Delivery personnel will learn to anticipate your inspection process, and you may notice product quality improve. Delivery personnel do not like to return product to the warehouse.

Inspect produce at receiving based on the bid specifications. Check temperatures for produce that should remain refrigerated at all times, such as lettuce, leafy greens, and all fresh-cut produce. Check the best if used by dates on all fresh-cut produce at receiving. Your bid specifications may require a certain number of days to be left before the best if used by date. Reject any produce that does not meet the specifications.

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The product 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 or grade and appearance must be checked at receiving. The produce will not get better looking at time goes on. Always check the quantity received against your order, not the invoice to be sure you are receiving the amount you requested.

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Check temperatures for refrigerated produce item, 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 41 °F.

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Take temperatures with an infrared thermometer at several points. If you use a bimetallic-stemmed or probe thermometer, do not pierce the bag. Hold two bags close together, and place the thermometer sensor between the two bags. Be sure to record the temperatures.

It is not as important that whole items, such as apples, oranges, or vegetables be at or below 41°F. Produce distributors store product under precise temperature 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 impact food safety. You may wish the temperature inside a few cases with an infrared thermometer.

When everything is delivered on the same truck, the ambient temperature in the truck may not be at 41°F or below when it gets to you, and if it is not then you should not reject the whole load. Refrigeration units in delivery trucks are designed to maintain temperature, not cool the produce. However, you still want to make sure that your fresh cut products are at 41°F or below when they arrive at your back door. Bananas, for example, are 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. They should not be 41 degrees.

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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 manufacturer's 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 days or more. 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" 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 put in the bag. Fresh-cut produce that has been mishandled may not be acceptable as long as the estimated date 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 produce items in your delivery and decide how quickly they should be used, even if it means using the new products before ones that are already in storage. Do not accept produce that will be poor quality before you will be able to menu the item. 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.

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If you receive produce that does not meet your standards, or your specifications, send it back. Accepting poor quality produce will reduce the eye appeal of fresh fruits and vegetables on your serving line. Plus, it will cost more because much of it may be thrown out. The only way to know if it meets your standard is to inspect it thoroughly.

If you are a manager or supervisor, it is your job to make sure that the receiving staff knows what your standards are and what to do if they think a 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 to your employees that poor product quality not only affects customer service, but also the bottom line.

Notes to instructor: Time permitting, allow audience to discuss successes or problems associated with receiving quality produce.

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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.

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Now, we're going to talk about storage. In particular, we are going to talk about these four topics (point to slide).

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The shelf life of fresh fruits and vegetables depends on the condition it was received, and how the produce is stored in your kitchen. Some produce, like apples, may be stored in the refrigerator or at room temperature. Others are dependent on the correct temperatures for quality and safety. Leafy greens, cut tomatoes, cut melons, and other fresh cut produce should be stored in the refrigerator. Berries, carrots, cauliflower, broccoli, fresh herbs, and mushrooms will last longer in cooler temperatures, too. Tomatoes, bananas, onions, garlic, citrus, apples, potatoes, winter squash, and some unripe fruit should be stored at room temperatures in designated locations. The skin of bananas will turn very dark in the refrigerator. Although the inside is delicious, the outside is very unappealing. Potatoes become sugary and mealy, and tomatoes lose their signature acidic bite when stored below approximately 50 °F. Don't just store everything in the refrigerator.

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Some produce is very perishable, while other produce may be stored for months in the right environment. The shelf life of produce after it has been received in a school kitchen depends on two factors: the quality and condition at receiving, and how it is handled and

stored after receiving. Produce that has reached peak ripeness in dry storage may last two days longer when moved into the refrigerator.

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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 it was received. Local farmers may not be able to fully supply the amount of product you need for your menu. 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. You should use the strawberries that are most perishable first, even though they are not first in.

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No matter where produce is stored, it should be at least 6 inches above the floor. Always store produce in a way that prevents cross contamination. For example, store fresh produce above raw meats, poultry, and eggs.

Slide 15:

Some produce, especially fruits, release ethylene gas to help ripen the fruit.

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 releasing ethylene gas. 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.

Slide 16:

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 most schools only have one large, walk in refrigerator.

Handout: Produce Storage Chart: <u>http://nfsmi.org/documentlibraryfiles/PDF/20110729103550.pdf</u>

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

Slide 18: Transition to activity

Activity: Show videos as time permits. All videos are available at <u>www.nfsmi.org/producesafety</u>:

- Receiving Fresh Produce
- Storing Fresh Produce
- Receiving and storing segments from *What Went Wrong*? and *What Went Right*? videos. Viewing guides are also available at <u>www.nfsmi.org/producesafety</u>.