BRAZOS VALLEY foodbank

Agency Partner Produce Guide

Receiving, Processing, Storage, and Distributing Produce

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Intro to Agency Partner Produce Handling Guide

As Food Banks we receive a broad range of fresh produce in various condition, some is simply excess product that would make retail or #1 grade and to the other extreme; some have already gone past any salvageable state. Most cases, it is somewhere in the middle that makes up the bulk of our donations.

The information contained in this document is a recommendation of practices to determine in a consistent manner the usability of fresh produce, these standards mirror some common standards used in the Fresh Fruit and Vegetable Industry.

Food banks see a wide range of produce crops and quality, everything from excess product that is retail quality to produce that has gone beyond a salvageable state. This toolkit is intended to address the unique produce handling needs of food distribution organizations in a way that standard produce industry guides cannot. It incorporates produce industry standards for handling, best practices from members, and Feeding America policies.

For questions or further information on proper produce handling instructions, please email Denise Lambert, Brazos Valley Food Bank Inventory & Facility Manager, at **DeniseL@bvfb.org** or call 979-779-3663 ext. 101

Recommended Produce Standards for Receiving Practices

As Food Banks we receive a broad range of fresh produce in various condition, some is simply excess product that would make retail or #1 grade and to the other extreme; some have already gone past any salvageable state. Most cases, it is somewhere in the middle that makes up the bulk of our donations.

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Receiving:

When produce is received at the food bank, it is usually the first opportunity for food banks to physically examine the product. Unlike other food types like cans or other shelf-stable packaged food, produce requires unique and specific handling. Produce can generally withstand a range of storage/transport temperatures, but going too extreme on either end could cause damage Therefore, going through a thorough inspection process during receiving is crucial to ensuring product quality.

To assist in produce quality assessment, please refer to the chart below:

Inspection Process:

The inspection process is conducted by assessing Condition and Temperature. You will need to determine the percentage of decay or damage on each carton sampled (using best judgment practice)

1. **Evaluate Appearance**

The employee/volunteer performing the inspection should start with a visual scan to check for signs of damage, decay, pests, leaks, etc. Take photos of any negative signs that may be cause for rejection of the load.

2. **Record Truck Temperature**

Our refrigerated trucks have a temperature recorder that displays both the set temperature of the unit, as well as the temperature within the box of the truck. The employee/volunteer performing the inspection should record temperature of truck (if possible) and check if signs of decay are because of too high a temperature, or if signs of chill damage are due to temperature being set too low.

3. **Product Sampling**

The employee/volunteer conducting the inspection should take product samples from multiple positions of all pallets (if applicable); product on top may be of differing quality than that of product on the bottom of the pallet. If necessary, inspectors may cut open a sample of the produce to ensure internal quality.

4. **If Necessary, Reject Produce**

If the employee/volunteer performing the inspection wants to reject all, or part of, the produce load, please provide reasoning for the rejection, including adequate details and pictures. Please adhere to the 80/20 Brazos Valley Food Bank Produce Policy. If 20%, or more, of one case item isn't suitable for distribution you may reject that item.

Condition:

The quality of the produce is determined by a visual assessment from the shipper or receiver inspecting the product. And will be based on external and internal appearance, the information needed for this procedure is obtained by first performing a visual outer inspection and secondly by cutting open the product and completing an assessment (if necessary) of the overall appearance and well being of the product being inspected. Any visual evidence of disease, rot, mold, internal breakdown, discoloration, etc. will be factors to consider when inspecting product.

Condition cannot be fully determined by inspecting the top layer of a single pallet. The inspector must inspect a fair number of pallets and containers from different parts and locations on the pallet in order to obtain an accurate assessment. The best rule of thumb to use is in selecting what pallets to inspect is from the front, middle and back of the load.

Temperature:

External temperatures do not reflect a true picture of what is going on inside of the fruit or vegetable accurately. Temperatures are taken from inside the product, using a pulp thermometer. A pulp thermometer is a probe type device that is inserted into the center or core of the product being inspected. A range of acceptable temperature is located in this document.

Once product has been inspected and received, there is another crucial step in prolonging its life cycle. Produce is a living breathing organism even after it is picked, packed and placed in your refrigerator at home; it is still alive and hopefully well. Different fruits and vegetables are sensitive to a variety of things that can have adverse effects on how long they will last. Some of these are Temperature Sensitivity, Ethylene production and sensitivity, Flavor transference and Top Icing of product.

Practical tips for processing produce

Sanitary practices

- Make sure anyone sorting is in good health (not sick with a cold or flu-like symptoms)
- Wash hands with soap and warm water for 20 seconds before sorting and when returning from breaks; preferably, dry hands with paper towels
- Put on a hair restraint (hairnet, bandana, or hat) before sorting
- Use disposable food-service grade gloves
- For very dusty crops like potatoes or sweet potatoes, you can use masks and disposable aprons to avoid breathing in dust and dirtying clothes
- After finishing the sort, wash and sanitize all surfaces that were used, especially tabletops
    - Sweep floors and inspect for spills; clean floors with sanitizing solution as necessary
    - Thoroughly wash and sanitize sinks
    - Wash, rinse and sanitize all equipment used

Physical safety tips

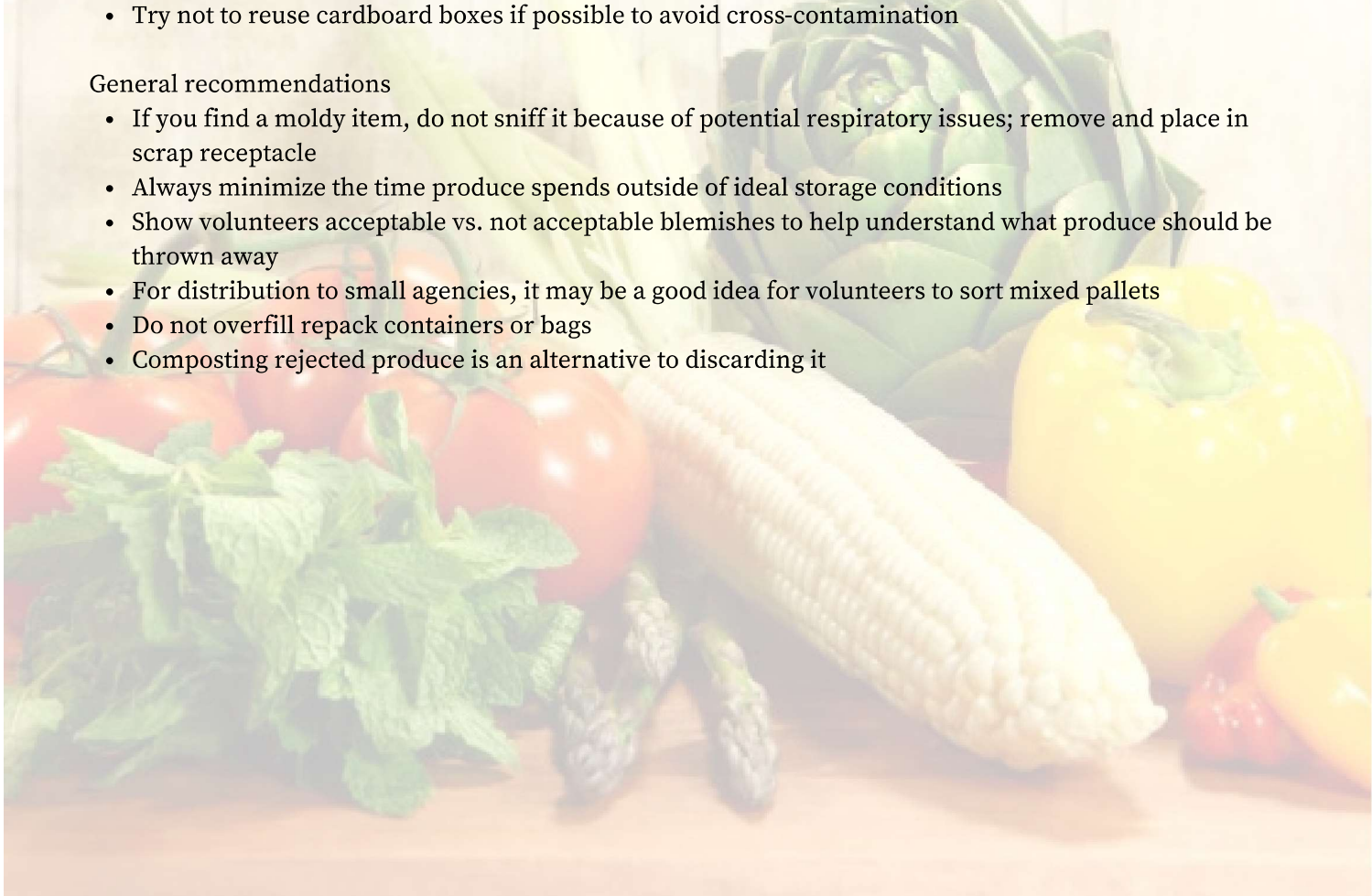
- Use safe lifting techniques when carrying heavy objects (i.e., lift with legs and not back)
- Avoid heavy work if you have health issues that will become aggravated
- Stay hydrated and take breaks as needed
- Stay out of the way of potentially dangerous warehouse equipment like fork lifts

Sorting equipment suggestions

- Softer products that have with more delicate skin (i.e., peaches) are better in boxes for repack, while harder products (i.e., apples) can withstand repack in bags
- Of all of the materials to use in the sort process, plastic bins are ideal from a food safety perspective because it can be properly sanitized, while cardboard and wood cannot be
- The ideal packaging for outbound produce includes vents (i.e., perforation in bags or sides of boxes) to encourage ventilation
- Try not to reuse cardboard boxes if possible to avoid cross-contamination

General recommendations

- If you find a moldy item, do not sniff it because of potential respiratory issues; remove and place in scrap receptacle
- Always minimize the time produce spends outside of ideal storage conditions
- Show volunteers acceptable vs. not acceptable blemishes to help understand what produce should be thrown away
- For distribution to small agencies, it may be a good idea for volunteers to sort mixed pallets
- Do not overfill repack containers or bags
- Composting rejected produce is an alternative to discarding it



Ethylene and Odor Storage Guidelines

What is ethylene sensitivity?
Ethylene is a gas that accelerates the ripening of many fruit and vegetable commodities. Some crops are especially efficient producers of ethylene while other crops are particularly sensitive to the gas. An ethylene sensitive crop should NEVER be stored or transported with ethylene producers. Separating sensitive commodities from ethylene producers will slow down the rate of ripening.

What is odor sensitivity?
Some commodities readily absorb odors from other fruits and vegetables that emit strong odors. An odor sensitive crop should NEVER be stored or transported near an odor producer. Separating odor sensitive commodities from odor producers will preserve the fresh taste and flavor of the crops.

How can I manage ethylene and odor sensitivity?
The following chart serves as a quick reference to identify commodities that 1) produce ethylene, 2) are ethylene sensitive, 3) produce odors, and 4) are odor sensitive. Produce highlighted in RED should never be stored with produce highlighted in ORANGE. Produce highlighted in BLUE should never be stored with produce highlighted in GREEN.

Ethylene and Odor Classifications

Ethylene Producing Commodities	Ethylene Sensitive Commodities
Cantaloupe *Mangos* *Papaya*	*Asparagus* *Bell Peppers* *Broccoli* *Brussels Sprouts* *Cabbage* *Carrots* *Cauliflower* *Chayote Squash* *Cucumbers* *Eggplant* *Grapefruit* *Herbs and Seasoning* *Hot Peppers* *Leafy Greens* *Lettuce* *Limes and Lemons* *Onions* *Papaya* *Parsnips* *Peas* *Summer Squash* *Sweet Potatoes* *Watermelon* *Winter/Fall Squash*
Odor Producing Commodities	**Odor Sensitive Commodities**
Bell Peppers *Cilantro* *Herbs and Seasoning* *Hot Peppers* *Onions* *Oranges* *Potatoes*	*Cabbage* *Cantaloupe* *Carrots* *Cauliflower* *Celery* *Corn* *Eggplant* *Honeydew Melons* *Hot Peppers* *Onions* *Parsnips* *Potatoes*

PRODUCT	STORAGE TEMP (°F)	ETHYLENE PRODUCER	ETHYLENE SENSITIVE	ODOR PRODUCER	ODOR SENSITIVE
Asparagus	32-36, not below 31	No	Yes	No	No
Beets	32-36, not below 31	No	No	No	No
Bell Peppers	45-50, not below 42	No	Yes	Yes	No
Broccoli	32-36	No	Yes	No	No
Brussels Sprouts	32-36	No	Yes	No	No
Cabbage	32-36	No	Yes	No	Yes
Carrots	32-36	No	Yes	No	Yes
Cauliflower	32-36	No	Yes	No	No
Celery	32-36, not below 31	No	No	No	Yes
Chayote Squash	45-50	No	Yes	No	No
Cilantro	32-36, not below 31	No	No	Yes	No
Corn	32-36, not below 31	No	No	No	Yes
Cucumbers	45-50, not below 45	No	Yes	No	No
Eggplant	45-50	No	Yes	No	Yes
Grapefruit	45-50	No	Yes	No	No
Green Beans	45-50	No	No	No	No
Herbs and Seasoning	32-36	No	Yes	Yes	No
Honeydew and Cantaloupe	55-65	Yes (cantaloupe)	No	No	Yes
Hot Peppers	45-50, not below 41	No	Yes	Yes	Yes
Jackfruit	55-65	No	No	No	No
Jicama	55-65	No	No	No	No
Kohlrabi	32-36	No	No	No	No
Leafy Greens	32-36, not below 31	No	Yes	No	No
Lettuce	32-36, not below 31	No	Yes	No	No
Limes and Lemons	45-50	No	Yes	No	No
Mangos	55-65, not below 50	Yes	No	No	No
Onions	55-65	No	Yes	Yes	Yes
Oranges	45-50	No	No	Yes	No
Papaya	55-65	Yes	Yes	No	No
Parsnips	32-36, not below 30	No	Yes	No	Yes
Peas	32-36, not below 31	No	Yes	No	No
Pineapples	45-50, not below 42	No	No	No	No
Potatoes	45-50, not below 42	No	No	Yes	Yes
Pumpkins	55-65	No	No	No	No
Radishes	32-36	No	No	No	No
Summer Squash	45-50	No	Yes	No	No
Sweet Potatoes	55-65	No	Yes	No	No
Tomatillos	45-50	No	No	No	No
Tomatoes	55-65	No	No	No	No
Turnips	32-36	No	No	No	No
Watermelon	45-50, not below 40	No	Yes	No	No
Winter/Fall Squash	55-65	No	Yes	No	No

Asparagus

Quick Facts:

Storage Temperature:	**32-36°F, not below 31**
Ethylene Producer:	No
Ethylene Sensitive:	**Yes**
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

- Reasonably firm surface
- Free from decay and excessively broken tips
- Tips are relatively compact

Accept:

Curved shape

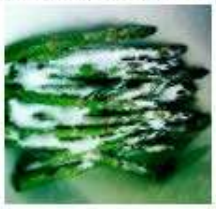
Yellowing

Brown tips

Asparagus can take on a curved shape as it ages; however, this does not affect the quality of the vegetable. Yellowing and browning is acceptable as long as the stalk and tips of the asparagus are not moldy or rotten.

Reject:

Excessive exterior mold



Slimy, mushy surface due to soft rot

Asparagus does not typically develop mold or rot if it is consistently stored in near-freezing temperatures. However, white mold and soft rot will give the asparagus a slimy, shiny texture. Any asparagus with this slimy appearance should be rejected.

Transportation and Storage:

Asparagus should be transported on a refrigerated truck to avoid the development of rot or mold. When asparagus is transported in a cold environment, it is important to maintain that temperature during transport, delivery, and storage.

Beets

Quick Facts:

Storage Temperature:	**32-36°F, not below 31**
Ethylene Producer:	No
Ethylene Sensitive:	No
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

- Reasonably firm surface
- Free from internal decay and soft rot
- Free from internal mold

Accept:

Branched bulb

Scratched, cloudy surface

Orange color variation

Beet bulbs may branch into odd shapes; however, these beets are still edible. Beets are often scarred and have a white or gray cloudy surface. Color variations of beets include the typical purple color and a golden orange color.

Reject:

Excessive exterior mold

Interior decay

Excessive external decay

Beets are relatively resistant to disease and decay, but beets with mold and internal infection should be rejected. These beets will lose their firmness and have a discolored inner surface. A rotten beet may develop a blackened exterior as well.

Transportation and Storage:

Beets must be transported in a refrigerated truck. As a root vegetable, beets often need to be cleaned of dirt before storage. Dirt in surface cracks that is not removed can develop decay and mold over time.

Bell Peppers

Quick Facts:

Storage Temperature:	**45-50°F, not below 42**
Ethylene Producer:	No
Ethylene Sensitive:	**Yes**
Odor Producer:	**Yes**
Odor Sensitive:	No

USDA Food Bank Standard:

- Reasonably firm surface
- Free from decay or rot within surface pits
- Little exterior mold and no interior mold

Accept:

Color Variations

Exterior scarring

Slight puckering without decay

Peppers can grow in a variety of colors, and exterior scratches and scarring are typical results of the harvesting process. Surface puckering usually indicates that mold or decay may be present; however, slight puckering without mold or decay should be accepted.

Reject:

Interior mold

Decaying surface pits

Puckering with decay

Excessive puckering combined with mold or decay is the most common reason to reject a rotten pepper. Decay in surface pits and interior mold should be rejected along with peppers that have excessive surface puckering and a soft exterior.

Transportation and Storage:

Bell peppers should be transported in a refrigerated truck. Bell peppers will begin to pucker and soften when stored in excessively hot temperatures, accelerating the development of rot and decay.

Broccoli

Quick Facts:

Storage Temperature:	**32-36°F**
Ethylene Producer:	No
Ethylene Sensitive:	**Yes**
Odor Producer:	No
Odor Sensitive:	No

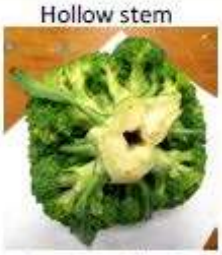
USDA Food Bank Standard:

- Little discoloration
- Fairly compact heads
- No decay or serious damage

Accept:

Some yellowing

Hollow stem



Multi-color varieties

Loose, separated heads

Broccoli with some yellowing is acceptable. Hollow stems are okay as long as there is no visible decay or mold within the stem. Broccoli may come in a variety of colors including purple, orange, and white. Overtime, broccoli heads will become less compact with individual branches fanning out from the center stem. Once there is visible space between the heads, the broccoli must be moved quickly as it is nearing the end of its shelf life.

Reject:

Mold on outer branches

Hollow stem with inner decay

Bacterial soft rot

Broccoli should be checked for mold on its outer branches, inner stem decay when broccoli has a hollow stem, and bacterial soft rot. Hollow stems will need to be cut open to check for inner decay eating in the center of the stem. Bacterial soft rot will cause discoloration on the broccoli's outer surface and should be rejected.

Transportation and Storage:

Broccoli is sensitive to changes in temperature and must be stored in 32-36°F environments. Broccoli is usually shipped on ice, so receiving food banks should have drains to remove excess water as the ice melts.

Brussels Sprouts

Quick Facts:

Storage Temperature:	**32-36°F, not below 31**
Ethylene Producer:	No
Ethylene Sensitive:	**Yes**
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

- Reasonably firm surface
- Free from decay in the core of the sprout
- Compact without internal browning

Accept:

Internal yellowing without decay

External rot that can be peeled off

White internal core

The internal color of Brussels sprouts can range from a bright white to a dark yellow color. Brussel sprouts should not be rejected for yellowing unless the yellow turns brown in the core of the sprout. External decay can often be removed to reveal a healthy, acceptable core of the Brussels sprout.

Reject:

Internal browning due to age or decay

Only reject if completely brown with decay

Large, internal black spots with rot

Brussels sprouts are relatively resistant to postharvest defects such as decay or mold. However, Brussels sprouts should be rejected when decay and rot is present in the internal core of the sprout. While yellowing of the center is common, browning and black rot are symptoms of decay.

Transportation and Storage:

Brussels sprouts must be transported in a refrigerated truck, and they behave much like mini heads of cabbage. Brussels sprouts stored in warm temperatures may develop internal rot or browning.

Cabbage

Quick Facts:

Storage Temperature:	**32-36°F**
Ethylene Producer:	No
Ethylene Sensitive:	**Yes**
Odor Producer:	No
Odor Sensitive:	**Yes**

USDA Food Bank Standard:

- Reasonably firm heads
- Little discoloration
- No inner decay or serious mechanical damage

Accept:

Some small spots on outer leaves

Brown, wilted outer leaves

Yellow outer layer

Cabbage is acceptable with small spots on outer leaves, brown and yellow outer layers, and wilted leaves. The discolored outer layer should be removed before consumption.

Reject:

Black or white rot

Mildew on inner leaves

Shredded or decaying inner leaves

Cabbage should be rejected when mildew, decay, or rot penetrates into the center edible portion of the cabbage head. Any black or white rot should be rejected. If mildew only affects the outer layer of the cabbage, it can be accepted. Shredded inner leaves should be rejected.

Transportation and Storage:

Cabbage is sensitive to changes in temperature and should be stored in a cooler at 32-36°F. Temperature changes during transportation or storage may lead to wilted, discolored leaves. Cabbage should be transported in a refrigerated truck.

Cauliflower

Quick Facts:

Storage Temperature:	**32-36°F, not below 31**
Ethylene Producer:	No
Ethylene Sensitive:	**Yes**
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

- Reasonably firm surface
- Free from decay that undermines firmness of the head

Accept:

Small brown spots on firm surface

Yellowing but firm surface

Color variations

Small brown spots and yellowing of the head are acceptable as long as the head of the cauliflower has not lost its firmness. Yellowing may occur due to sun exposure, and brown soft rot comes with aging. Cauliflower can be grown in purple, yellow, and green varieties.

Reject:

Blackened surface with soft, mushy texture

Slimy, mushy surface due to soft rot

Cauliflower that loses its firm texture due to an infection should be rejected. Signs of infection include many black or brown surface spots, a slimy texture, and large sunken portions of the cauliflower head. To be accepted, cauliflower must maintain its firmness.

Transportation and Storage:

Cauliflower behaves much like broccoli and should be transported in a refrigerated truck. As the shelf life of the cauliflower decreases in storage, the heads of the cauliflower will become less compact as branches spread apart from the center.

Celery

Quick Facts:

Storage Temperature:	**32-36°F, not below 31**
Ethylene Producer:	No
Ethylene Sensitive:	No
Odor Producer:	No
Odor Sensitive:	**Yes**

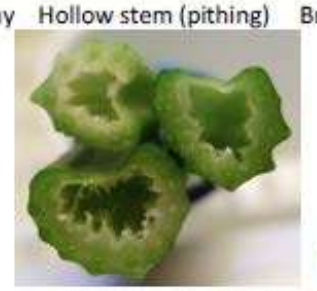
USDA Food Bank Standard:

- Reasonably firm surface
- Free from internal decay that creates a soft texture
- Free from slimy appearance

Accept:

Some surface yellowing without decay

Hollow stem (pithing)



Browning of the base without decay

Celery may turn yellow as it ages or when it is stored with other ripening (ethylene-producing) fruits and vegetables. Yellowing and browning of the base are acceptable as long as the celery does not have a slimy appearance or excessive internal discoloration. Hollowing may occur.

Reject:

Internal soft rot and slimy appearance

Internal mold that cannot be removed

Celery internal rot and mold are characterized by discoloration and wilted leaves. Both conditions should be rejected. Infected celery will have a slimy appearance and will lose its typical firmness and bright green color.

Transportation and Storage:

Celery should be transported in a refrigerated truck, and it often receives mechanical damage during harvesting and transport.

Chayote Spuash

Quick Facts:

Storage Temperature:	**45-50°F**
Ethylene Producer:	No
Ethylene Sensitive:	**Yes**
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

- Reasonably firm surface
- No internal rot or decay
- Free from mold and interior breakdown

Accept:

Discolored spots without decay

Exterior thorns

Bruises and scars

Chayote squash can develop water blotches and oil spots during harvest, but these surface discolorations are harmless. The squash often has surface scars and a misshapen appearance. Thorns may grow from the skin of the squash.

Reject:

Excessive mold and black rot

Exterior mold and discoloration

Disorders and decay of chayote squash are rare; however, exterior mold and discoloration may signal interior rot and decay. Sometimes, exterior mold can be peeled away if the core of the squash is unaffected by the infection.

Transportation and Storage:

Chayote squash is a relatively tough commodity that can withstand significant scarring and bruising during transport. Chayote should be transported in a refrigerated truck.

Corn

Quick Facts:

Storage Temperature:	**32-36°F, not below 31**
Ethylene Producer:	No
Ethylene Sensitive:	No
Odor Producer:	No
Odor Sensitive:	**Yes**

USDA Food Bank Standard:

- Husks free of decay or worms
- White or deep yellow kernels
- Firm kernels, but not hard and dry like feed corn

Accept:

White, yellow, or missing kernels

Brown silks (check inner kernels for moisture and decay)

Kernel color can range from a bright white to a deep yellow within a single husk of corn. Missing kernels are common; however, missing kernels may signal the presence of a corn worm or decaying kernels. Brown silks are acceptable, but kernels should be examined for decay or smut mold.

Reject:

Corn husk worm

Corn smut mold

Kernel decay

When the tips of a corn husk have a darkened, moldy appearance, the interior kernels should be checked for decay, mold, and corn worms. Missing kernels may also signal the presence of worms and decay. Corn smut mold is a gray or black disfigurement growing inside the corn husk.

Transportation and Storage:

Corn should be transported in a refrigerated truck in an environment between 32 and 36°F; however, corn is not as sensitive to fluctuations in temperature as other vegetables.

Cucumbers

Quick Facts:

Storage Temperature:	**45-50°F, not below 45**
Ethylene Producer:	No
Ethylene Sensitive:	**Yes**
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

- Reasonably firm surface
- Free from mold
- Little decay or sunscald
- Few signs of chill injury

Accept:

Yellowing

Surface bumps

Outer scars or blemishes

Cucumbers will yellow as they ripen; however, yellow cucumbers are edible and should not be rejected. Small bumps, blemishes, and scars on the outer surface of the cucumber are normal consequences of handling the cucumbers. Outer blemishes should be checked for mold and decay.

Reject:

Mold

Decay

Soft, puckered skin due to chill injury

Mold and decay on the outer surface should be rejected. Soft, puckered skin should be checked for decay, and the cucumber should be rejected if the interior of the cucumber contains rot.

Transportation and Storage:

Corn should be transported in a refrigerated truck in an environment between 45 and 50°F. If stored in temperatures below 45°F for 3 days, cucumbers will lose their firmness, their outer skin will become puckered due to chill injury, and they will become more susceptible to decay.

Eggplant

Quick Facts:

Storage Temperature:	**45-50°F, not below 45**
Ethylene Producer:	No
Ethylene Sensitive:	**Yes**
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

- Reasonably firm surface
- Free from mold
- Little decay or sunscald
- Few signs of chill injury

Accept:

Odd Shapes

Exterior scarring

Some discoloration from sunscald

Eggplants often have a discolored surface due to mechanical scarring or exposure to an excessive amount of sunlight (sunscald). As long as there is no mold or decay infecting the scratches and discolored areas, the eggplant should be accepted. Unusually shaped eggplants are edible as well.

Reject:

Eggplant worm hole

Mold on body of eggplant (not the stem!)

Brown spots with inner rot

Worm holes, mold, and decay that penetrate into the interior edible portion of the eggplant should be rejected. Exterior discoloration may signal problems with the interior core of the eggplant. If discoloration occurs, the interior of the eggplant should be checked for decay. Mold only on the stem is okay to accept.

Transportation and Storage:

Eggplants should be transported in a refrigerated truck. Fluctuations in temperature may cause rot and mold to develop in external scars. Nutrition education is crucial in teaching clients and agencies how to incorporate eggplants into their diets.

Grapefruit

Quick Facts:

Storage Temperature:	**45-50°F**
Ethylene Producer:	No
Ethylene Sensitive:	**Yes**
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

- Reasonably firm surface
- Free from decay and mold
- Orange, greenish-orange, or yellow surface color

Accept:

Green-orange skin

Oil spots without mold or decay

The surface texture of grapefruit often consists of small bumps or spots that are acceptable as long as they are not rotten, decaying, or infected with mold. The surface color of grapefruit may range from a greenish-orange to orange to yellow. Ripe grapefruit are usually heavy for their size.

Reject:

Interior decay

Excessive exterior mold

Rot near the stem

Exterior mold can be removed when the grapefruit is peeled; however, any decay or mold that enters the interior of the grapefruit should be rejected. Rot near the stem usually penetrates into the central core of the grapefruit and should be rejected.

Transportation and Storage:

Grapefruit should be transported on a refrigerated truck. Oil from the hands of processors can create oil spots on the grapefruit that might develop rot and mold; however oil spots are perfectly acceptable as long as the inside of the grapefruit is not rotten.

Green Beans

Quick Facts:

Storage Temperature:	**45-50°F**
Ethylene Producer:	No
Ethylene Sensitive:	No
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

- Most of the bean surface is firm with few spots
- No mold inside of the bean or decaying bruises

Accept:

Yellowing

Color variations

Some bruising without rot

The color of a green bean can be green, yellow, light purple, or dark purple. Bruising often affects the outer surface of the green bean. Bruised green beans should be check for internal mold, rot, and decay. Without these complications, bruised green beans can be accepted.

Reject:

Bruising with decay

Mold

Rusting

Bruises may develop decay and mold over time. Decaying green beans tend to be slimy. Green beans can often develop a red-brown rust color, and these green beans should be rejected. If only some green beans in a box are rusted while most of the beans are green, pick out the rusting beans and accept the rest of the box.

Transportation and Storage:

Green beans are transported on a refrigerated truck. Green beans are highly susceptible to develop mold when they are stored in warmer temperatures or when a cold temperature cannot be maintained consistently.

Herbs and Seasoning

Quick Facts:

Storage Temperature:	**32-36°F**
Ethylene Producer:	No
Ethylene Sensitive:	**Yes**
Odor Producer:	**Yes**
Odor Sensitive:	No

USDA Food Bank Standard:

- Most of the leaf surface is green with few spots
- No mold on the leaves

Accept:

Yellowing

Wilting without decay

Some brown spots

Herbs often yellow as they age, and some brown spots may appear on the edge of the leaf. If there are only a few brown spots (less than half of the leaf), then the herbs can be accepted. If wilting occurs, consider cooking with the leaves rather than serving them fresh.

Reject:

Excessive browning

Brown bacterial spots covering majority of leaf

Excessive browning of herb leaves will jeopardize the freshness and taste of the herb. Black bacterial spots may often appear on the leaves, and these can develop mold that should be rejected. If any brown or black discoloration covers more than 50% of the leaf, reject the leaf.

Transportation and Storage:

Most herbs are transported in near-freezing conditions on ice. Basil, however, should be transported and stored in temperatures of 45-50°F. Some food banks are unable to accept these herbs because the food bank coolers must be equipped with drains to collect water as the ice melts.

Honeydew and Cantaloupes

Quick Facts:

Storage Temperature:	**55-65°F**
Ethylene Producer:	No
Ethylene Sensitive:	No
Odor Producer:	No
Odor Sensitive:	**Yes**

USDA Food Bank Standard:

- Firm surface
- Free from internal decay, mold, and soft rot
- No discoloration >50% of entire melon

Accept:

Discolored surface

Surface spots

Green streaks and cracks (cantaloupe)

Honeydew melons have softer skin than cantaloupes and are more likely to have large discolored areas and surface spots. These are acceptable. Cracks and scarring are typical of both melons, but deep cuts that penetrate into the center of the melon should be checked for decay.

Reject:

Soft edge signals possible interior rot

Interior rot

Black rot, cut out rotten portion

Decay near the stem edge of the melons indicates possible interior rot, and these melons should be cut open and inspected. Interior rot will have a strong odor, and the melon's seeds will be loose when water enters through cracks in its surface. Sometimes, a rotten section can be cut out while the rest of the melon is safe to eat.

Transportation and Storage:

Honeydew melons and cantaloupe should be transported in a refrigerated truck; however, they only need to be transported at 55-65°F. Melons differ in texture and color, but they tend to have strong skin that will be scarred and bruised without much decay.

Hot Peppers

Quick Facts:

Storage Temperature:	**45-50°F, not below 41**
Ethylene Producer:	No
Ethylene Sensitive:	**Yes**
Odor Producer:	**Yes**
Odor Sensitive:	Yes

USDA Food Bank Standard:

- Reasonably firm surface
- Free from internal decay and wall breakdown
- Free from slimy appearance

Accept:

Surface scarring

Internal discoloration without decay

Color variations

Hot peppers are often scarred during harvesting and transport, so surface scarring without decay is acceptable. With age, hot peppers will change colors both internally and externally, and these color variations are acceptable as long as there is no decay or breakdown of the pepper walls.

Reject:

Excessive mold and decay

Exterior mold

Infection and decay

Decay from infection and mold are the most common reasons that hot peppers are rejected. Oftentimes, one pepper will be unacceptable while the other peppers in the same box are acceptable, so inspectors should check all the contents of a box before rejecting it.

Transportation and Storage:

Hot peppers should be stored in a refrigerated truck. Most of the time it is not necessary to dispose of an entire box of hot peppers when one pepper is rotten, so the entire contents of a box should be checked for decay before storage.

Jack Fruit

Quick Facts:

Storage Temperature:	**55-65°F**
Ethylene Producer:	No
Ethylene Sensitive:	No
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

- Relatively firm surface
- No internal decay or rot
- Green, yellow, or brown color

Accept:

Browning

Brown and black spots without decay

Jackfruit can be yellow, brown, or light green. The jackfruit's tough surface can withstand a lot of mechanical bruising. Brown or black spots and cuts are acceptable if there is no decay. Exterior mold is acceptable if the core of the jackfruit is free from decay.

Reject:

Blackening

Exterior mold (check for internal decay)

Internal rot

Jackfruit with exterior mold should be checked for internal decay. All internal decay should be rejected. Decayed jackfruit may become a black or gray color, and the decay will create an intense, rotten odor.

Transportation and Storage:

Jackfruit is transported on a refrigerated truck. Changes in temperature can accelerate decay and mold development.

Jicama

Quick Facts:

Storage Temperature:	**55-65°F**
Ethylene Producer:	No
Ethylene Sensitive:	No
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

- Reasonably firm surface
- No interior decay or rot
- Free from excessive exterior mold

Accept:

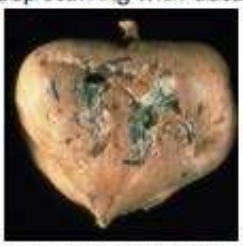
Scarring without decay

Water spots

Jicama can withstand heavy scarring, bruising, and scratching during harvest. As long as the scars do not develop decay, the edible portion of the vegetable is unaffected. Water spots can weaken the jicama's skin, leaving the core without protection from bruising and scratches.

Reject:

Deep scarring with decay



Internal rot

Excessive mold

Surface scars may develop into decay that affects the core of the jicama. Internal rot will replace the typically white core with a brown discoloration. Mold may also develop in surface cracks, but it may be peeled away if the mold does not affect the edible portion of the jicama.

Transportation and Storage:

Jicama should be transported on a refrigerated truck. Jicama with surface water spots should be more delicately transported because the skin can easily peel away when touched.

Jicama

Quick Facts:

Storage Temperature:	**32-36°F**
Ethylene Producer:	No
Ethylene Sensitive:	No
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

- Reasonably firm surface
- No interior decay or rot
- Free from excessive exterior mold

Accept:

Purple and green color variations

Cuts without decay

Kohlrabi can be either purple or green. It often has deep cuts with brown edges, but these cuts typically do not develop decay. Any mold on the outer surface of the kohlrabi can usually be peeled away before eating.

Reject:

Soft rot

Stem and internal rot

Kohlrabi is not very susceptible to rot and decay, but stem rot may develop into internal rot. If internal rot develops, the kohlrabi will lose its firmness and become discolored. The walls of the kohlrabi will break down and soften.

Transportation and Storage:

Kohlrabi should be transported in a refrigerated truck and handled in a way similar to cabbage. Cleaning dirt out of surface cuts will slow down the development of decay.

Kohlrabi

Quick Facts:

Storage Temperature:	**32-36°F**
Ethylene Producer:	No
Ethylene Sensitive:	No
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

- Reasonably firm surface
- No interior decay or rot
- Free from excessive exterior mold

Accept:

Purple and green color variations

Cuts without decay

Kohlrabi can be either purple or green. It often has deep cuts with brown edges, but these cuts typically do not develop decay. Any mold on the outer surface of the kohlrabi can usually be peeled away before eating.

Reject:

Soft rot

Stem and internal rot

Kohlrabi is not very susceptible to rot and decay, but stem rot may develop into internal rot. If internal rot develops, the kohlrabi will lose its firmness and become discolored. The walls of the kohlrabi will break down and soften.

Transportation and Storage:

Kohlrabi should be transported in a refrigerated truck and handled in a way similar to cabbage. Cleaning dirt out of surface cuts will slow down the development of decay.

Leafy Greens

Collards, Kale, Spinach, Swiss Chard

Quick Facts:

Storage Temperature:	**32-36°F, not below 31**
Ethylene Producer:	No
Ethylene Sensitive:	**Yes**
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

- Most of the leaf surface is green with few spots
- No mold on the leaves

Accept:

Some brown patches

Wilted leaves

Yellowing

If leafy greens become wilted, consider cooking the leaves rather than serving them fresh. Brown patches on the leaf surface may develop over time, but patches and spots that cover only a small portion of the leaves can be accepted. Yellowing leaves are acceptable if they are not dried out.

Reject:

Excessive brown spots

Excessive yellowing and browning

Infestation and decay

Excessive browning and yellowing of the leaves should be rejected when the leaves are dried out or the discoloration significantly covers the surface of the leaves. Brown spots that cover the majority of the leaf surface should be rejected as well.

Transportation and Storage:

Leafy greens are transported in a refrigerated truck and may begin to wilt during transport. Wilted leaves are okay to eat, but it is better to cook with wilted leaves rather than serve them fresh.

Lettuce

Quick Facts:

Storage Temperature:	**32-36°F, not below 31**
Ethylene Producer:	No
Ethylene Sensitive:	**Yes**
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

- Firm leaves with little wilting
- Free from internal mold
- Brown core and tears in leaves are normal

Accept:

Brown core

Brown stain on leaves and stem

Firm leaves

A brown core and brown stains on leaves and stems are acceptable and will not affect the taste of the lettuce as long as the inner leaves of the lettuce are unaffected. Leaves should be relatively firm, and wilted outer leaves should be removed. Tears or bruises on the leaves are acceptable.

Reject:

Wilted inner leaves

Mildew and mold in core stem

Slimy mold on leaves

Mold and mildew will give lettuce a slimy, wet appearance. Mildew or mold in the core stem of the lettuce should be rejected. Wilted or moldy outer leaves should be removed, and if any damage extends into the interior leaves, the entire head of lettuce should be rejected.

Transportation and Storage:

Lettuce should be transported in a refrigerated truck in an environment between 32 and 36°F. Storing lettuce in a below-freezing environment can lead to a chill injury. When a chill injury occurs, lettuce leaves will lose their taste and become translucent. The key to inspecting lettuce is to check if the inner leaves are wilted or decaying.

Limes and Lemons

Quick Facts:

Storage Temperature:	**45-50°F**
Ethylene Producer:	No
Ethylene Sensitive:	**Yes**
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

- Reasonably firm surface
- Free from decay and mold
- Color variation is normal
- Juicy and not dried out

Accept:

Color variations (yellow limes)

Oil spots without decay

Stem browning without decay

The surface color of lemons and limes may range from a green to yellow. Oil spots form the hands of processors may cause discoloration, but they are acceptable without decay. The browning of the stems of limes (*stylar breakdown*) is acceptable without decay.

Reject:

Green or blue mold

Discoloration of >50% of surface

Stem browning with decay

Green and blue mold and discoloration of more than half of the fruit's surface should be rejected. Browning near the stem of a lime will often develop into decay and mold of the core of the fruit, so discolored limes should be checked for internal decay.

Transportation and Storage:

Lemons and limes should be transported on a refrigerated truck. Oil from the hands of processors can create oil spots on the lemons and limes that might develop rot and mold; however oil spots are perfectly acceptable as long as the inside of the lemons and limes is not rotten.

Mangos

Quick Facts:

Storage Temperature:	**55-65°F, not below 50**
Ethylene Producer:	**Yes**
Ethylene Sensitive:	No
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

- Reasonably firm surface
- Free from decay and mold
- No insects living in the mango interior

Accept:

Discoloration without internal decay

Small brown spots without internal decay

The surface texture of mangos often consists of small bumps or spots that are acceptable as long as they are not rotten, decaying, or infected with mold. The surface of mangos should be firm to the touch. Your thumb should not make a substantial indention when pressed against the mango skin.

Reject:

Large sunken brown spots

Soft outer surface signals inner decay

Black, spongy interior

Internal decay may be difficult to detect because there may not be decay on the mango's skin, so some mangos should be cut open to check for decay. If a single brown spot covers a large portion of a mango, there is a high possibility there is internal decay.

Transportation and Storage:

Mangos should be transported on a refrigerated truck to avoid development of internal and external decay. Mangos are highly susceptible to chill injury, so they should never be transported at a temperature below 50°F.

Onions

Quick Facts:

Storage Temperature:	**55-65°F**
Ethylene Producer:	No
Ethylene Sensitive:	**Yes**
Odor Producer:	**Yes**
Odor Sensitive:	**Yes**

USDA Food Bank Standard:

- Firm, hard surface
- Tight necks and dry, papery skin
- Loose outer skin is common
- No decay or significant sunscald

Accept:

Small sprouts on outer surface

Unusual shapes

Loose outer skin

Small sprouts, outer surface discoloration, and other surface irregularities should be peeled off before consumption. Unusual shapes are acceptable.

Reject:

Bulb rot

Soft rot

Deep sunscald

Neck rot

Onions are more susceptible to decay compared to other root vegetables, and a strong sour odor will result from decay. Black rot along the neck and soft rot inside the bulb of the onion should be rejected. Sunscald should only be rejected when the scalding penetrates into the edible center of the onion.

Transportation and Storage:

Onions should be transported in a vented van or refrigerated truck to avoid temperature fluctuations that could shorten the shelf life of the onions. Onions should be consistently stored in 55-65°F environments.

Oranges

Quick Facts:

Storage Temperature:	**45-50°F**
Ethylene Producer:	No
Ethylene Sensitive:	No
Odor Producer:	**Yes**
Odor Sensitive:	No

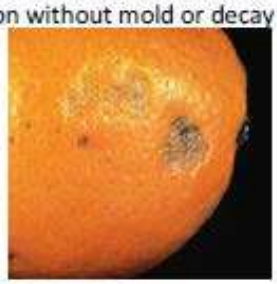
USDA Food Bank Standard:

- Reasonably firm surface
- Free from decay and mold
- Orange to greenish-orange surface color
- Juicy and not dried out

Accept:

Green-orange skin

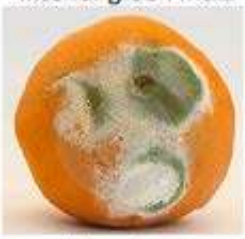
Oil surface spots and discoloration without mold or decay



The surface texture of oranges often consists of small bumps or spots that are acceptable as long as they are not rotten, decaying, or infected with mold. The surface color of an orange may range from a greenish-orange to orange.

Reject:

Interior green mold



Interior navel mold

Interior decay

Exterior mold can be removed when the orange is peeled; however, any decay or mold that enters the interior of the orange should be rejected. A rotten orange will be soft to the touch and have a discolored central core.

Transportation and Storage:

Oranges should be transported on a refrigerated truck. Oil from the hands of processors can create oil spots on the oranges that might develop rot and mold; however oil spots are perfectly acceptable as long as the inside of the orange is not rotten.

Papaya

Quick Facts:

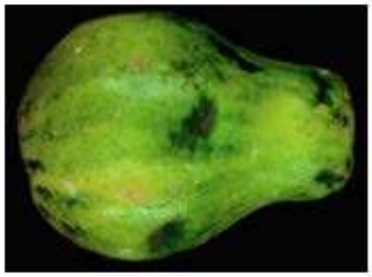
Storage Temperature:	**55-65°F**
Ethylene Producer:	**Yes**
Ethylene Sensitive:	**Yes**
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

- Relatively firm surface
- No internal decay or rot
- Green or yellow color

Accept:

Bruises without decay



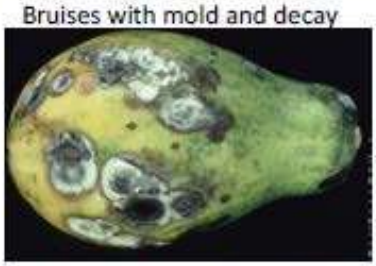
Yellow with scarring

Papaya is often bruised and cut, but this is acceptable as long as there is no decay or mold growing inside of the bruises and scars. Yellowing often occurs with age.

Reject:

Stem black rot with internal decay

Bruises with mold and decay



Internal rot

Papaya can develop mold and decay when it is bruised. The surface of the papaya will lose its firmness when internal rot occurs. Internal rot will cause significant discoloration of the core of the papaya. Papayas may also develop black rot around its stem that can develop into internal decay.

Transportation and Storage:

Papaya is transported on a refrigerated truck. Changes in temperature can accelerate decay and mold development.

Parsnips

Quick Facts:

Storage Temperature:	**32-36°F, not below 30**
Ethylene Producer:	No
Ethylene Sensitive:	**Yes**
Odor Producer:	No
Odor Sensitive:	**Yes**

USDA Food Bank Standard:

- Reasonably firm surface
- Tan, white, or light orange color
- No soft rot damage

Accept:

Black rings around root end

Scarring on outer surface

Odd shapes

Small spots and scarring on the outer surface of parsnips are normal results of harvesting and transportation. The black ring around the end of the parsnip is not black rot and should be accepted.

Reject:

Internal rot with shriveled texture

Decaying surface and rot crater

White or black mold on the outer surface of the parsnip should be rejected. Any decay that eats into the parsnip, penetrating the surface, should be rejected. Decaying parsnips will have a slimy surface texture.

Transportation and Storage:

Parsnips should be transported in a refrigerated truck. The most important quality check for parsnips is to identify rot that penetrates into the center of the vegetable.

Peas

Quick Facts:

Storage Temperature:	**32-36°F, not below 31**
Ethylene Producer:	No
Ethylene Sensitive:	**Yes**
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

- Most of the pod surface is firm with few spots
- No mold inside of the pod

Accept:

Yellowing

Discolored peas

The color of a pea pod can range from green to yellow, and the peas inside of the pod may also become discolored. In either case, the peas should be accepted. Bruising may also occur on the outside of the pod, and bruised peas should be checked for internal rot.

Reject:

Discoloration > 50%

Bruise with internal decay

Internal rot

Peas can develop both internal and external mold when they are not stored properly. If the exterior of a pea pod is bruised, it should be checked for internal rot and infection. If bruising and scarring is limited to the exterior of the pod, the peas may still be safe to eat.

Transportation and Storage:

Peas are transported in near-freezing conditions on a refrigerated truck. Peas are highly susceptible to develop mold when they are stored in warmer temperatures or when a cold temperature cannot be maintained consistently.

Pineapples

Quick Facts:

Storage Temperature:	**45-50°F, not below 42**
Ethylene Producer:	No
Ethylene Sensitive:	No
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

- Reasonably firm surface
- Free from internal decay and soft rot
- Free from internal mold

Accept:

Green to golden yellow color variations

Exterior mold without interior decay

As pineapples ripen, their exterior color transitions from a dark green to a golden yellow color. When the exterior becomes a dark brown, the inside of the pineapple should be checked for decay. Most of the time, exterior mold and discoloration can be cut away to reveal a healthy, edible core.

Reject:

Interior soft rot

Interior mold

Excessive external decay

Interior mold

External decay can easily be identified when areas of the exterior are sunken and discolored. Internal mold and soft rot is not easily identified, so some pineapples should be cut open when the exterior of the pineapple has transitioned from a golden color to a dark brown color. Slimy liquid may ooze out of the pineapple when internal rot is present.

Transportation and Storage:

Pineapples should be transported on a refrigerated truck. If pineapples begin to develop liquid oozing from its surface during storage, it should be checked for internal rot.

Potatoes

Quick Facts:

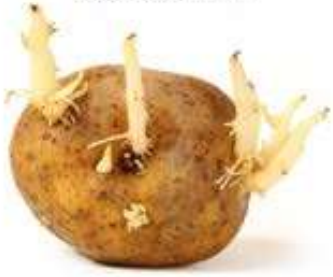
Storage Temperature:	**45-50°F, not below 42**
Ethylene Producer:	No
Ethylene Sensitive:	No
Odor Producer:	**Yes**
Odor Sensitive:	**Yes**

USDA Food Bank Standard:

- Reasonably firm surface
- Surface sprouts or unusual lumps are normal
- Free from mold or green discoloration

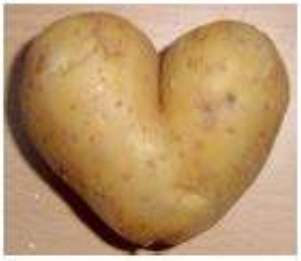
Accept:

Surface sprouts



Unusual lumps

Odd shapes



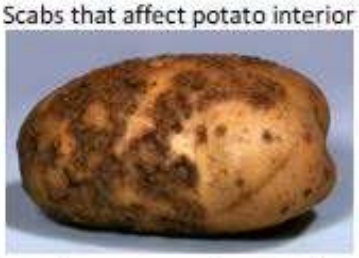
Surface sprouts and other discolored patches or pits in a potato's surface are acceptable. Potatoes are often unusually shaped and have lumps that do not need to be removed before consuming the potato. Surface cuts are acceptable as long as they are not decaying.

Reject:

Mold in cut

Soft outer surface due to rot

Scabs that affect potato interior



Surface mold often grows in cuts on the potato's surface. Internal soft rot often creates discolored surface spots that can become sunken and soft. Potatoes with scabs or mold should be rejected if the infection penetrates into the potato interior. Spoiled potatoes have a distinct odor.

Transportation and Storage:

Potatoes should be transported in a refrigerated truck in an environment between 45 and 50°F. Storing potatoes in too cold of an environment may accelerate the development of soft rot, leaving the interior of the potato inedible.

Pumpkin

Quick Facts:

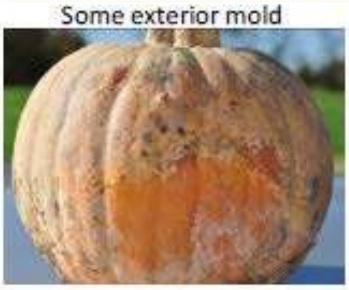
Storage Temperature:	**55-65°F**
Ethylene Producer:	No
Ethylene Sensitive:	No
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

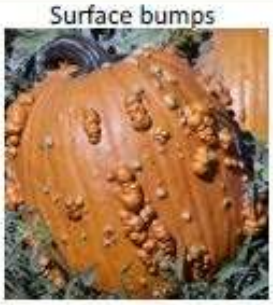
- Relatively firm surface
- Free from interior decay or mold
- Few exterior decaying scars

Accept:

Some exterior mold



Surface bumps



External scarring without soft decay

Pumpkins have a tough exterior that can develop discoloration, bruises, and scarring. Some exterior mold is okay as long as it can be cut away and the pumpkin is free from internal rot. Bruises and scars should be checked for decay by cutting open the pumpkin.

Reject:

Internal black rot and mold

Bruise with internal rot

Excessive exterior rot

Pumpkins with internal rot should always be rejected. Internal rot will usually form a discolored bruise on the surface of the pumpkin, giving the pumpkin a soft, mushy texture. Rotten pumpkins will have a distinct, unavoidable odor.

Transportation and Storage:

Pumpkins are less sensitive to changes in temperature and transportation scarring than summer squash because pumpkins have a rough exterior. Pumpkins should be transported in a refrigerated truck.

Radishes

Quick Facts:

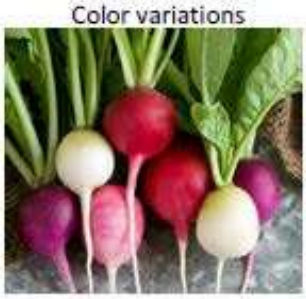
Storage Temperature:	**32-36°F**
Ethylene Producer:	No
Ethylene Sensitive:	No
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

- Reasonably firm surface
- No interior decay or rot
- Free from excessive exterior mold

Accept:

Color variations



Cuts without interior damage

Large cut without decay or mold

Radishes can withstand significant damage during harvest and transport; however, they should be accepted if cuts are free from decay and mold. Radish tops can spoil quickly, meaning the leaves and stems become slimy, rotten, and emit an odor, but the edible root portion is still acceptable even when the tops are decaying.

Reject:

Soft rot

Excessive mold and decaying cuts

Radishes that have lost their firmness most likely have internal soft rot and should be rejected. A radish with internal rot will develop a soft, discolored bruise on its surface. Excessive mold and decay in exterior cuts should be rejected.

Transportation and Storage:

Radishes should be transported in a refrigerated truck. Cleaning dirt out of surface cuts will slow down the development of decay.

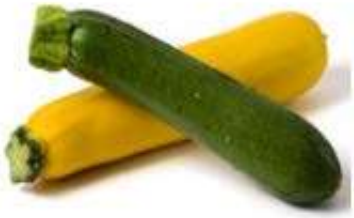
Squash Identification

Summer Squash (soft-rind):

Yellow Squash:
Yellow skin, long slender shape

Gray (Mexican) Squash:
Green skin, shorter and thicker than zucchini

Zucchini Squash:
Yellow or green skin, long and slender shape



Winter/Fall Squash (hard-rind):

Acorn Squash:
Dark green-orange skin, firm texture, acorn shape

Butternut Squash:
Tan-orange skin, firm texture, hourglass shape

Pumpkin:
Dark orange-yellow skin, firm texture, thick stem

Spaghetti Squash:
yellow skin, firm texture, less slender than yellow squash

Summer Squash

Yellow, Gray (Mexican), Green and Yellow Zucchini

Quick Facts:

Storage Temperature:	**45-50°F**
Ethylene Producer:	No
Ethylene Sensitive:	**Yes**
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

- Relatively firm surface
- Free from interior decay or mold
- Few exterior decaying scars

Accept:

Odd shape and flowering

Bumps and scars on surface

Discoloration

Summer squash has a soft outer skin that may become bruised, scarred, and scratched during harvest and transport. Zucchini comes in both green and yellow varieties, and some discoloration may occur. If the surface of a summer squash loses its firmness, check for internal decay.

Reject:

Excessive mold and decay

Bruise with mold and internal rot

Decay

Exterior discoloration, bruising, or mold may indicate that soft rot is occurring internally. Any summer squash that shows these symptoms should be cut open and examined for internal rot. Decaying summer squash will have a slimy appearance and a soft, mushy texture.

Transportation and Storage:

Radishes should be transported in a refrigerated truck. Cleaning dirt out of surface cuts will slow down the development of decay.

Sweet Potatoes

Quick Facts:

Storage Temperature:	**55-65°F**
Ethylene Producer:	No
Ethylene Sensitive:	**Yes**
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

- Reasonably firm surface
- Surface sprouts or unusual lumps are normal
- Free from mold in surface cuts

Accept:

Surface sprouts

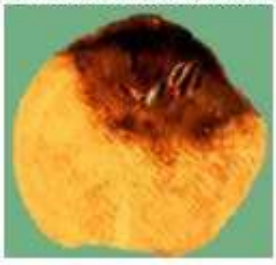
Surface pits with some mold

Odd shapes

Surface sprouts and other discolored patches or pits in a sweet potato's surface are acceptable. Sweet potatoes often are unusually shaped and have lumps that do not need to be removed.

Reject:

Internal rot and discoloration



Soft spots due to rot

Surface mold

Surface mold often grows in cuts on the sweet potato's surface. Sweet potatoes with mold should be rejected if the mold penetrates into the interior of the potato. Soft spots may form on the outer surface of the sweet potato when rot occurs below the skin. Potatoes with soft rot should be rejected.

Transportation and Storage:

Sweet potatoes should be transported in a refrigerated truck in an environment between 55 and 65°F. Storing sweet potatoes in too cold of an environment may accelerate the development of soft rot, leaving the interior of the potato inedible.

Tomatillos

Quick Facts:

Storage Temperature:	**45-50°F**
Ethylene Producer:	No
Ethylene Sensitive:	No
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

- Reasonably firm surface
- Free from mold
- No decay or mold
- Bright, shiny skin

Accept:

Yellowing

Dried husks are typical

Color chart

The outer surface of a tomatillo should be firm to the touch. Small surface dents are acceptable as long as the majority of the tomatillo has a firm surface. Tomatillos can range in color from dark green to bright yellow and orange. They typically have a husk that can be removed.

Reject:

Slimy, soft skin with internal rot

Bruising with decay

Rot and mold will cause excessive bruising and discoloration on the outer surface of the tomatillo. A slimy, soft surface indicates internal rot. Mold on the husk can be removed before cooking.

Transportation and Storage:

Tomatillos should be transported in a refrigerated truck to avoid decay. The shelf life of a tomatillo shortens significantly with rapid fluctuations in storage temperature, so a constant temperature should be maintained during transport and storage.

Turnips

Quick Facts:

Storage Temperature:	**32-36°F**
Ethylene Producer:	No
Ethylene Sensitive:	No (greens are sensitive)
Odor Producer:	No
Odor Sensitive:	No

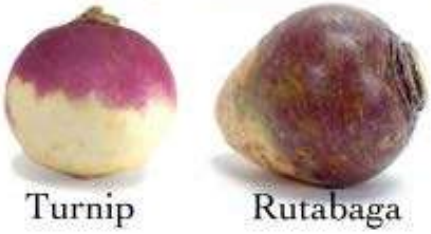
- Reasonably firm surface
- No interior decay or rot
- Free from excessive exterior mold

Accept:

Exterior cuts without decay

Exterior dirt and bruises

Turnips vs. rutabaga



Turnips can withstand significant damage during harvest and transport, and they should be accepted if cuts are free from decay and mold. Damaged turnips can be cut open to check for interior damage. Turnips are acceptable even when their leaves and stems decay.

Reject:

Cuts with internal rot

Deep decaying cuts

Excessive soft rot

Turnips that have lost their firmness most likely have internal soft rot and should be rejected. Turnips with deep, decaying cuts should also be rejected. Excessive decay and mold will cause discoloration and softness of the skin.

Transportation and Storage:

Turnips should be transported in a refrigerated truck. Cleaning dirt out of surface cuts will slow down the development of decay.

Watermelon

Quick Facts:

Storage Temperature:	**45-50°F, not below 40**
Ethylene Producer:	No
Ethylene Sensitive:	**Yes**
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

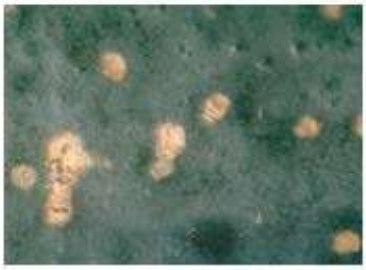
- Reasonably firm surface
- Free from mold
- Well formed and not overripe
- Little decay or sunscald

Accept:

Hollow center, no mold

Yellow or white patches

Spots on outer surface



Watermelons do not ripen after harvesting. A ripe watermelon will produce a distinct hollow sound when thumped. Sunspots and yellow patches are okay as long as the discoloration does not penetrate into the edible portion of the watermelon.

Reject:

Mold

Decay

Deep sunscald

Decaying watermelon will have an intense, noticeable odor when arriving at the foodbank. Mold, decay, and sunscald should be rejected when they penetrate into the inner edible portion of the watermelon.

Transportation and Storage:

Watermelon can be transported via a vented van or a refrigerated truck, and they should be stored in a moderately cool environment between 45-50°F. Watermelon are sensitive to fluctuations in temperature and should be stored at a constant temperature to avoid encouraging decay or mold. Watermelon should be stored outside of direct sunlight.

Winter/Fall Squash

Acorn, Butternut, and Spaghetti

Quick Facts:

Storage Temperature:	**55-65°F**
Ethylene Producer:	No
Ethylene Sensitive:	**Yes**
Odor Producer:	No
Odor Sensitive:	No

USDA Food Bank Standard:

- Relatively firm surface
- Free from interior decay or mold
- Few exterior decaying scars

Accept:

Yellowing and discoloration

Bruising (check for internal rot)

External scarring without soft decay

Winter/fall squash has a tough exterior that can develop discoloration, bruises, and scarring. All three abnormalities are acceptable as long as the squash is free from soft rot, decay, and interior mold. Winter squash often develops stem mold, but this is acceptable without internal rot.

Reject:

Internal black rot and mold

Bruise with internal rot

Stem rot with internal mold

Squash with internal rot should always be rejected. Internal rot will usually form a discolored bruise on the surface of the squash, giving the squash a soft, mushy texture. Rotten squash will have a distinct, unavoidable odor. Butternut squash tends to develop stem rot.

Transportation and Storage:

Winter/fall squash is less sensitive to changes in temperature and transportation scarring than summer squash because it has a rough exterior. This squash should be transported in a refrigerated truck.