

Produce Transportation 101:

# A Temperature & Humidity Guide for Fruits & Vegetables



# A Temperature & Humidity Guide for Fruits & Vegetables

In this modern world—where global markets thrive and fresh produce is available year-round—the journey from the farm to consumers' plates is a complex and fascinating one. Behind every succulent fruit and crisp vegetable lies a carefully orchestrated process of produce transportation and shipping, connecting farmers, distributors, retailers, and consumers worldwide. Each of these stakeholders demands end-to-end visibility to know the location and condition of their shipments throughout the supply chain journey—and for a good reason: without real-time tracking of perishable foods, they risk massive waste, customer dissatisfaction, and reputational damage.

To put this into perspective, the [Food & Agricultural Organization of the United Nations](#) reports that approximately \$400 billion is lost annually between harvest and the retail market—and likely a substantial portion of that can be attributed to temperature or humidity excursions in the supply chain, either in warehousing or produce transportation. What's even worse is when a problem isn't discovered until after fresh produce reaches a retailer's shelves. According to the U.S. Food and Drug Administration, as of early June 2023, there had been [more than 40 food and beverage recalls](#) in the U.S.—many related to contaminated or spoiled produce.

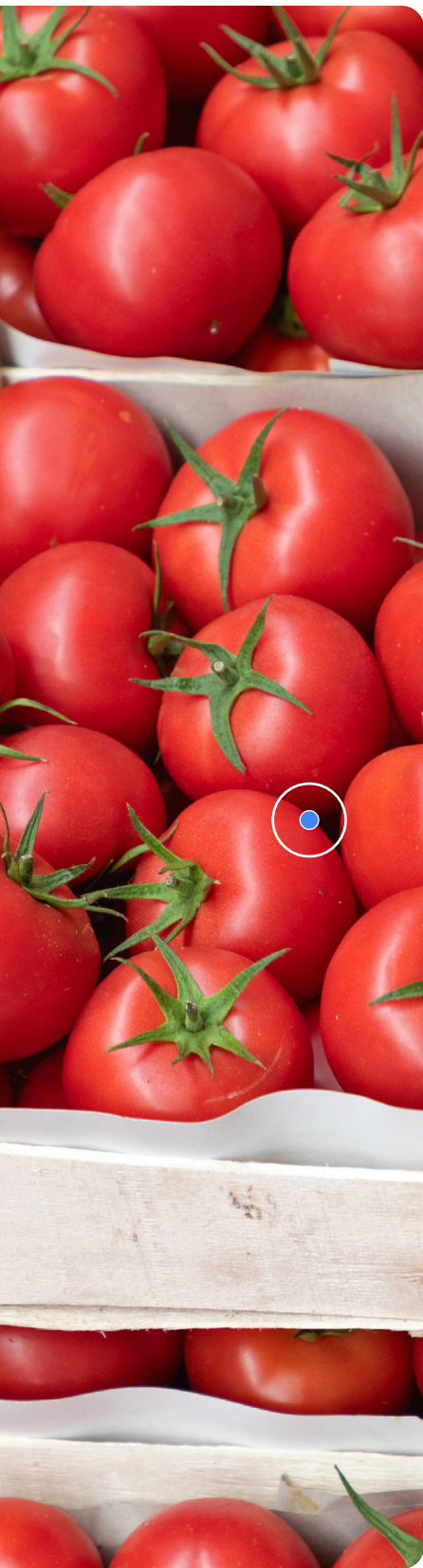
This ebook explores the intricacies of fresh produce transportation, shedding light on the key players involved and addressing the challenges faced along the way.

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## This resource contains the following sections:

- I. An Overview: How to Transport Fresh Vegetables & Fruits
- II. The Challenges of Knowing Temperature & Humidity When Shipping Produce
- III. A Shipper's Guide to Optimal Temperature & Humidity Ranges
- IV. Why Packaging is Vital in the Transportation of Fruits & Vegetables
- V. Best Practices in Produce Logistics





## Section I:

# An Overview of How to Transport Fresh Vegetables & Fruits

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Produce shipping encompasses the logistics network for transporting fruits, vegetables, and other perishable goods from origin to various destinations. From the moment a seed is planted in the fertile soil to the moment the final product reaches a local grocery store or a dinner table, **numerous steps are involved** in ensuring the safe and timely delivery of fresh produce—to ensure that it retains the utmost quality.

At the heart of produce shipping are the key players: farmers, shippers, carriers, logistics partners, and retailers. Farmers devote their expertise, dedication, and hard work to cultivating bountiful harvests. At the same time, shippers coordinate the logistics of packaging, storing, and preparing produce for transport—and then **tracking shipments** throughout the journey. Carriers, including trucking companies, shipping vessels, and air cargo services, transport these goods across vast distances, navigating through intricate supply chains. Finally, retailers play a crucial role in receiving, displaying, and distributing produce to consumers, using special refrigerated market areas to ensure its freshness and quality.

However, the process of fresh produce transportation is fraught with challenges. Delicate fruits and vegetables are highly perishable and require precise temperature and humidity control, proper handling, and careful monitoring to maintain their freshness and nutritional value. Factors such as distance, weather conditions, transportation infrastructure, and regulatory compliance—namely, the U.S. Food and Drug Administration's **Food Safety Modernization Act and subsequent Final Rule on Traceability Records**—add additional layers of complexity.

Read on as we delve into the realm of fresh produce transportation, exploring the critical roles of its key players—and unraveling the challenges they face. By gaining a deeper understanding of this intricate process, shippers and stakeholders can better appreciate the remarkable journey that brings nature's bounty to grocers' shelves and consumers' tables—while also seeking innovative solutions to overcome the hurdles that lie ahead.



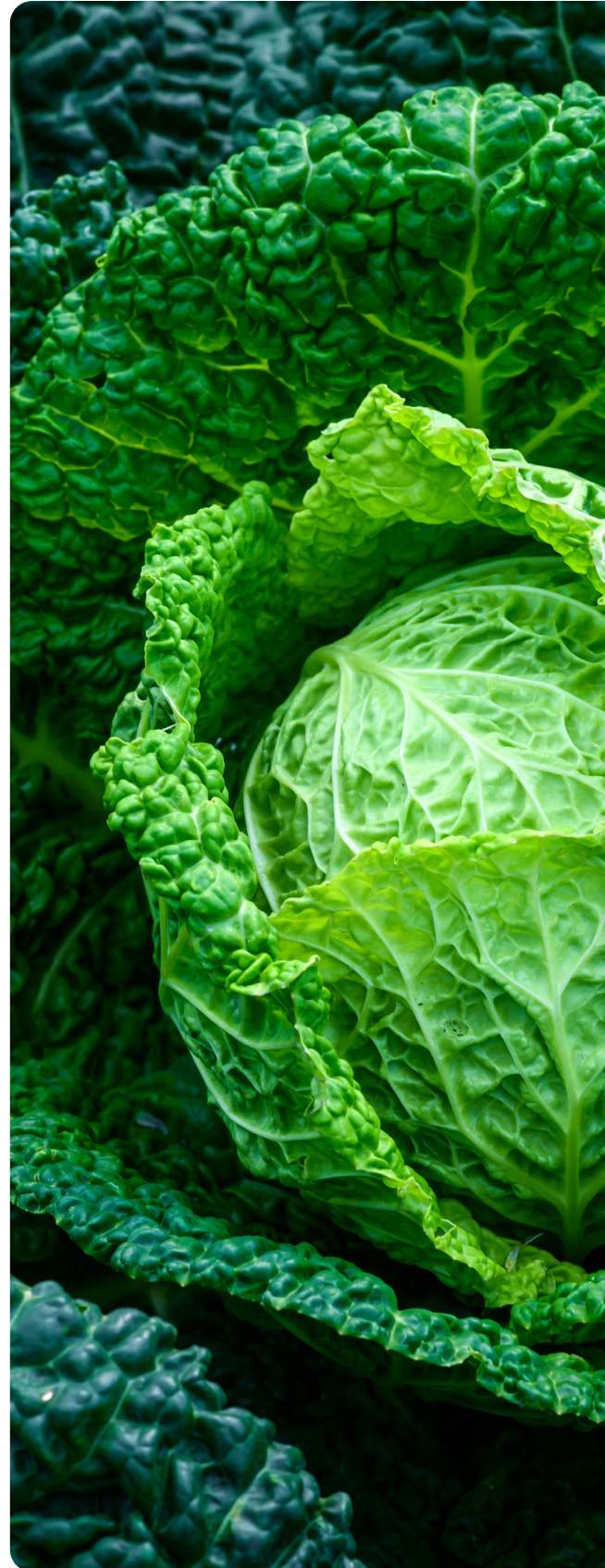
## Section II:

# The Challenges of Managing Temperature & Humidity When Shipping Produce

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Produce transportation is complex due to its delicate nature. **Any disruption in the cold chain** (the process of maintaining optimal conditions throughout the transportation process) can lead to:

- ✓ **Delays and damage to your OTIF rate**
- ✓ **Rejected loads and food waste**
- ✓ **Loss of revenue**
- ✓ **Customer dissatisfaction**
- ✓ **Reputational damage**
- ✓ **Added costs associated with replacing shipments and handling freight claims**



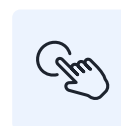
In many ways, those costs are merely the tip of the *iceberg* lettuce when it comes to the challenges of managing produce transportation. Consider the following:

- **Each type of fresh produce has specific temperature and humidity requirements** (see the guides in Section IV), which makes it challenging to transport different types of produce together in one truckload. For example, the correct temperature range for spinach might spoil a batch of apples, and the proper moisture levels for grapes could render lettuce inedible.
- **Specialized packaging is crucial to prevent spoilage or contamination.** Any damage to the packaging can impact freshness—and potentially freeze the product instead of just keeping it cold.
- **The fresh produce shipping process can be costly** due to the need for specialized equipment, training for staff, and extra maintenance to ensure proper packing—and the correct cold chain temperatures and humidity levels.
- **Regulatory compliance is essential** to avoid financial and legal issues. Shippers must maintain—and be able to promptly access—digital records proving product has been kept at the proper temperature and condition throughout its lifecycle.
- **The fresh produce market is highly competitive,** and companies must find ways to innovate while improving supply chain efficiency—and reducing costs.
- **The demand for fresh, nutritious food is rising,** and shippers must be prepared to handle any increases in demand. Those who invest in supply chain technology that provides end-to-end visibility and real-time tracking **experience higher customer satisfaction.**
- **Specialized labor,** which is increasingly scarce due to labor shortages, is necessary for handling fresh produce.
- **Effective inventory management** is vital due to the limited shelf life of fresh produce. Too much inventory can result in a lack of storage space and waste, while too little inventory can lead to missed sales opportunities.
- **Shippers must track multiple factors**—including temperature, humidity, light exposure, and shock absorption—during transit to ensure optimal conditions throughout the shipment’s journey.
- **Processing and analyzing data accurately** is essential for identifying trends or patterns that can help optimize operations.

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That’s a burdensome list of challenges for shippers overseeing produce transportation. While they can’t control many external influences—weather, traffic, and labor shortages, to name a few—shippers can use real-time tracking solutions to constantly monitor the temperature, humidity, and location of fresh produce during transit. Doing so assures stakeholders that steps have been taken to deliver top-quality fruits and vegetables—on time, in good condition—so they’re safe and ready to consume.

**For more challenges related to produce logistics, check out Tive’s infographic:**



**10 Critical Challenges in Fresh Grocery & Supermarket Supply Chains**





### Section III:

# A Shipper's Guide to Temperature & Humidity Ranges

Temperature and relative humidity during produce transportation are two of the most critical factors in maintaining the quality and safety of fresh produce freight. Temperature affects the rate of respiration, ethylene production, and spoilage. Relative humidity affects the moisture content of produce, which can affect its texture, appearance, and shelf life. The tables that follow detail the ideal temperature, humidity levels, and packaging requirements by commodity shipped.

## Ideal Temperature Ranges Needed to Maximize Shelf Lives

The most common fresh produce types shipped, along with their recommended temperature ranges to achieve ideal shelf life: commodity shipped.

See figure on your right.



### Apples

32–38°F (0–3°C)  
1–12 months



### Avocados

50–59°F (10–15°C)  
2–4 weeks



### Bananas

50–59°F (10–15°C)  
6 weeks



### Blueberries

32–38°F (0–3°C)  
2–3 weeks



### Broccoli

32–38°F (0–3°C)  
3–4 weeks



### Cantaloupe

45–50°F (7–10°C)  
Up to 3 weeks



### Cucumbers

45–50°F (7–10°C)  
1–2 weeks



### Grapes

32–38°F (0–3°C)  
1–2 weeks



### Green Beans

45–50°F (7–10°C)  
7–10 days



### Honeydew Melons

45–50°F (7–10°C)  
12–15 days



### Tomatoes

45–50°F (7–10°C)  
Up to 10 days



### Lemons

32–38°F (0–3°C)  
3–4 weeks



### Limes

32–38°F (0–3°C)  
3–4 weeks



### Oranges

32–38°F (0–3°C)  
3–8 weeks



### Papayas

50–59°F (10–15°C)  
3–4 weeks



### Peaches

32–38°F (0–3°C)  
2 weeks



### Pears

32–38°F (0–3°C)  
12 months



### Potatoes

40–50°F (7–10°C)  
2–3 months



### Pineapples

50–59°F (10–15°C)  
2–3 weeks



### Peppers

45–50°F (7–10°C)  
2 weeks



### Pumpkins

50–59°F (10–15°C)  
2–6 months



### Watermelons

50–59°F (10–15°C)  
Up to 3 weeks



























## Ideal Relative Humidity by Produce Type

Humidity refers to the amount of moisture in the air, often called “relative humidity.” While humans usually loathe the oppressiveness of high humidity—think of those sweltering, steamy days when you step outside and immediately sense the need for another shower—fresh fruits and vegetables thrive in conditions where water is abundant in the air.

High relative humidity helps fresh produce retain its weight, appearance, nutritional quality, and flavor. On the opposite end, low relative humidity leads to higher transpiration rates—the loss of water from the produce—resulting in mold, bacteria, wilting, softening, and reduced juiciness. No one wants dry oranges, shriveled grapes, wilted lettuce, etc.

In general, when storing and transporting produce, the higher the humidity, the better. The table below shows the optimal relative humidity ranges for select produce items.

 <b>Apples</b> 85–95%	 <b>Peaches</b> 85–95%	 <b>Watermelons</b> 85–95%
 <b>Avocados</b> 85–95%	 <b>Tomatoes</b> 85–95%	 <b>Green Beans</b> 90–95%
 <b>Bananas</b> 85–95%	 <b>Lemons</b> 85–95%	 <b>Pineapples</b> 85–95%
 <b>Blueberries</b> 85–95%	 <b>Limes</b> 85–95%	 <b>Peppers</b> 85–95%
 <b>Broccoli</b> 90–95%	 <b>Oranges</b> 85–95%	 <b>Pumpkins</b> 75–85%
 <b>Cantaloupe</b> 85–95%	 <b>Pears</b> 85–95%	 <b>Honeydew Melons</b> 85–95%
 <b>Cucumbers</b> 85–95%	 <b>Papayas</b> 85–95%	
 <b>Grapes</b> 85–95%	 <b>Potatoes</b> 75–85%	



## Section IV:

# Why Packaging is Vital in the Transportation of Fruits & Vegetables

Packaging plays a crucial role in the distribution and transportation of fresh fruits and vegetables: it helps protect the produce from damage, provides convenience for handling and storage, and ensures product quality.

## 1 Cartons:

Widely used for packaging fruits and vegetables, cartons are typically made of paperboard or corrugated cardboard and come in various sizes and shapes. Cartons provide good protection and stackability and can be customized with ventilation holes or liners to control moisture and airflow.

## 2 Pallets:

Pallets are flat platforms used for stacking and moving large quantities of packaged fruits and vegetables. They are typically made of wood, plastic, or metal, and are compatible with forklifts or pallet jacks. Produce is often loaded onto pallets in cartons, crates, or bins for efficient handling and storage.

## 3 Bins:

Also known as bulk bins or totes, these large containers are used for storing and shipping bulk quantities of produce. They are typically made of plastic or wood, and can hold several hundred kilograms of fruits or vegetables. Bins have a sturdy construction and multiple access points—which makes them practical for products such as apples, citrus fruits, or potatoes.

## 4 Hampers:

These baskets are made from wicker, bamboo, or plastic, and are often used for premium or specialty produce, including berries, cherries, or gourmet vegetables. Hampers provide an attractive presentation and excellent airflow, making them ideal for gift packs or retail displays.

## 5 Crates:

These rigid containers are made of wood, plastic, or metal, and have slatted sides or bottoms to allow for air circulation and drainage. Crates are commonly used for transporting bulk quantities of produce, especially heavier fruits and vegetables such as melons or root crops. They offer durability and are reusable.

## 6 Bags and pouches:

Certain fruits and vegetables are often packaged in bags or pouches made of various materials, including plastic, mesh, or breathable films. These packages provide protection and visibility—and can be easily sealed and resealed. Shippers involved with produce transportation often use them for products such as onions, citrus fruits, or leafy greens.



It's worth noting that packaging practices can vary depending on the type of produce, market requirements, and sustainability considerations. Many efforts aim to develop environmentally friendly packaging options—such as biodegradable materials or reusable containers—to reduce waste and minimize the environmental impact of packaging in the fresh produce industry.





# Common Shipping Packaging by Commodity

The following table lists the packaging types and weights for some common fresh produce freight shipped.

Commodity	Packaging
 <b>Apples</b>	<ul style="list-style-type: none"><li>45 lb 1⅛ bushel cartons, loose</li><li>40–45 lb cartons, tray-pack</li><li>40 lb bushel cartons, tray- or cell-pack</li><li>40 lb bushel cartons, loose</li><li>40 lb cartons, ten 4 lb bags</li><li>40 lb cartons, eight 5 lb bags</li><li>40 lb cartons, sixteen 8-count trays, overwrapped</li><li>38–42 lb cartons, loose</li><li>37–43 lb cartons, cell-pack</li><li>36 lb cartons, twelve 3 lb bags</li><li>20 lb half-bushel cartons, loose</li></ul>
 <b>Asparagus</b>	<ul style="list-style-type: none"><li>30 lb pyramid cartons/crates, bunched or loose</li><li>28 lb cartons/crates, bunched</li><li>25 lb lugs/cartons, loose</li><li>24 lb cartons, sixteen 1½ lb packages</li><li>21 lb lugs/cartons, loose</li><li>20 lb pyramid cartons/crates</li><li>20 lb cartons, bunched</li><li>15–17 lb pyramid cartons/crates, bunched or loose</li><li>14 lb cartons, loose</li><li>12 lb cartons, loose</li><li>12–13 lb cartons/crates, bunched</li><li>11 lb cartons/crates, loose</li></ul>





Commodity	Packaging
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**Beans**

*All Types*

26–31 lb bushel crates/hampers  
25–30 lb cartons/crates, including semi-telescope types

*Snap Beans*

20–22 lb cartons  
15 lb cartons

*Yellow Wax Beans*

30 lb bushel hampers/crates



**Beets**

50 lb mesh bags  
45 lb wirebound crates/cartons, bunched in 12s  
38 lb cartons/crates, bunched in 12s  
35 lb half crates, loose  
32 lb 4/5 bushel crate  
25 lb bags, loose  
20 lb cartons/crates, bunched in 12s



**Blueberries**

11 lb flats, twelve 1 pint cups  
9 lb flats, twelve 250 gram cups  
5 lb flats, twelve 8 oz baskets



**Broccoli**

*Bunched*

21 lb cartons/crates, 14s and 18s




*Crown-Cut*

20 lb cartons, loose

*Florets*





10 lb film bags  
5 lb film bags



Commodity	Packaging
 <b>Brussels Sprouts</b>	<p><i>25 lb cartons, loose</i> <i>10 lb flats/cartons</i></p>
 <b>Cabbage</b>	<p><i>Green and Red</i> 2,000 lb bulk bins 1,000 lb bulk bins 50–60 lb flat crates 50 lb 1¾ bushel crates/cartons/bags 45 lb cartons 40 lb cartons/bags</p> <p><i>Savoy</i> 40 lb 1¾ bushel crates</p> <p><i>Chinese</i> 80–85 lb crates 45–54 lb crates 50–53 lb carton</p>
 <b>Carrots</b>	<p><i>Topped</i> 50 lb cartons/bags, loose 50 lb cartons, ten 5 lb bags 48 lb master bags, containing forty-eight 1 lb, twenty-four 2 lb, or sixteen 3 lb bags 26 lb cartons, bunched 25 lb bags, loose 24 lb cartons, containing twenty-four 1 lb bags 15 lb cartons, containing twenty 12 oz bags</p> <p><i>Bunched</i> 26 lb cartons/crates, 24s</p> <p><i>Baby Whole</i> 24 lb cartons, containing twenty-four 1 lb film bags 20 lb cartons, containing twenty 1 lb bags 15 lb cartons, containing twenty 12 oz bags</p>





Commodity	Packaging
 <b>Cauliflower</b>	60 lb wirebound crates 50 lb cartons/crates (Long Island Type) 25–30 lb cartons, 12s and 16s film-wrapped and trimmed
 <b>Corn</b>	50 lb cartons/crates/bags 42 lb cartons/crates/bags 37 lb mesh bags
 <b>Cucumbers</b>	<i>Pickling</i> 55 lb $\frac{1}{9}$ bushel cartons/crates  <i>Slicers</i> 50 lb bushel cartons/crates 30 lb cartons, 48s 28 lb $\frac{5}{9}$ bushel cartons/crates 24 lb cartons, 36s and 42s 22 lb cartons, 24s  <i>Greenhouse</i> 16 lb cartons, loose, film-wrapped 12 lb flats/cartons, loose, film-wrapped  <i>Greens</i> 30–35 lb $1\frac{2}{5}$ bushel and $1\frac{3}{5}$ bushel crates 20–25 lb bushel baskets/crates/cartons 20–25 lb 12-24 bunches per crates/cartons
 <b>Grapes</b>	<i>Bunch</i> 24 lb crates, eight 2-quart baskets 22–23 lb cartons/lugs 21 lb lugs 20 lb 12-quart baskets 16 lb lugs, 16 lb bagged/wrapped  <i>Muscadines</i> 12 lb flats, twelve 1 pint cups



## Commodity

## Packaging



### Lettuce

#### *Iceberg*

50 lb cartons, 30s, 24s, 18s

30 lb cartons

20 lb cartons

#### *Boston*

22 lb 1  $\frac{1}{9}$  bushel crates

20 lb cartons/crates, 24s

10 lb flat cartons/crates

5 lb 12-quart baskets/cartons

#### *Bibb*

10 lb flat cartons/crates

5 lb 12-quart baskets/cartons

5 lb baskets, greenhouse

#### *Looseleaf*

25 lb cartons/crates

20 lb  $\frac{4}{5}$  bushel crates

14 lb 1  $\frac{1}{9}$  bushel crates

10 lb baskets/cartons

#### *Romaine*

40 lb  $\frac{2}{3}$  cartons/crates

28 lb 1  $\frac{1}{3}$  bushel cartons

22 lb 1  $\frac{1}{9}$  bushel cartons/crates

22 lb carton, 24s





## Commodity

## Packaging



### Melons

#### *Cantaloupe*

1,000 lb pallet bins

800 lb pallet bins

80 lb jumbo crates

60 lb 1<sup>3</sup>/<sub>4</sub> bushel cartons

54 lb cartons

45–50 lb wirebound crates

40 lb cartons/crates

40 lb 1 <sup>1</sup>/<sub>9</sub> bushel cartons/crates

#### *Casaba and Crenshaw*

32–34 lb cartons, 4s, 5s & 6s

48–51 lb flat crate, 5s & 6s

#### *Honeydew*

35 lb flat crates

30 lb cartons

#### *Watermelon*

1,000 lb pallet bins

100 lb cartons

85 lb cartons, various counts

40 lb cartons

35 lb cartons (Mickey Lee)



### Okra

30 lb bushel baskets/crates/hampers

23 lb <sup>3</sup>/<sub>4</sub> bushel hampers

15 lb <sup>1</sup>/<sub>2</sub> and <sup>5</sup>/<sub>9</sub> bushel baskets/crates/lugs/  
clamshells



## Commodity

## Packaging



### Onions

#### *Bulb*

50 lb cartons/bags/crates, loose  
50 lb cartons, containing ten 5 lb bags  
48 lb cartons, containing sixteen 3 lb bags or 24  
2 lb bags  
45 lb cartons, containing fifteen 3 lb bags  
40 lb cartons, containing twenty 2 lb bags  
40 lb cartons, loose 36 lb cartons, containing  
twelve 3 lb bags  
32 lb cartons, sixteen 2 lb bags  
25 lb bags/cartons, loose  
24 lb cartons, containing twelve 2 lb bags  
10 lb bags, loose

#### *Green*

28 lb cartons, bunched 12s, bulb-type  
20 lb cartons/crates, bunched 24s, bulb-type  
13 lb cartons, bunched 48s  
11 lb cartons, bunched 36s







### Peaches

38 lb  $\frac{3}{4}$  bushel cartons/crates  
35 lb cartons  
26 lb cartons  
25 lb  $\frac{1}{2}$  bushel cartons/crates  
22 lb 2-layer carton  
11 lb crates/flats, 1-layer tray pack  
10 lb cartons  
9 lb cartons, 1-layer





Commodity	Packaging
 <b>Peas</b>	<i>Green</i> 30 lb bushel baskets/crates/hampers 30 lb 1 ⅓ bushel crates/cartons  <i>Snow, China, Sugar, Sugar Snap</i> 10 lb cartons  <i>Southern</i> 25 lb bushel hampers
 <b>Peppers</b>	<i>Bells</i> 35 lb 1 ¼ bushel cartons 30 lb cartons/crates 28 lb bushel and 1 ⅓ bushel cartons/crates 25 lb cartons 14-15 lb half-bushel cartons 11 lb flat cartons  <i>Jalapenos and Chilies</i> 16-25 lb ½ and ⅝ bushel cartons/crates, loose 20 lb cartons, loose 10 lb cartons, retail packs
 <b>Potatoes</b>	100 lb bags 50 lb cartons/bags 50 lb carton, containing five 10 lb or ten 5 lb bags
 <b>Pumpkins</b>	1,000 lb bins 50 lb cartons/crates/bags 25 lb ½ bushel cartons/crates





## Commodity

## Packaging



### Radishes

#### *Topped*

40 lb bags, loose

25 lb bags, loose

14 lb cartons, containing fourteen 1 lb bags

12 lb baskets/cartons, containing thirty 6 oz bags

#### *Bunched*

35 lb cartons/crates, 48s, 24s

30 lb  $\frac{4}{5}$  bushel cartons/lugs

20 lb cartons/crates, containing 24 bunches

15 lb cartons/crates, 24s



### Spinach

32 lb  $1\frac{2}{3}$  bushel cartons/crates

25 lb bushel carton/crates

20 lb cartons, 24s

12 lb bags

10 lb 24-quart baskets

8 lb cartons, twelve 10 oz bags



### Squash

#### *Summer*

42 lb bushel and  $1\frac{1}{9}$  bushel carton

35 lb cartons/crates

30 lb  $\frac{3}{4}$  bushel cartons/crates

26 lb cartons/lugs

21 lb  $\frac{1}{2}$  or  $\frac{5}{9}$  bushel baskets/cartons/crates

10 lb 8-quart baskets/cartons

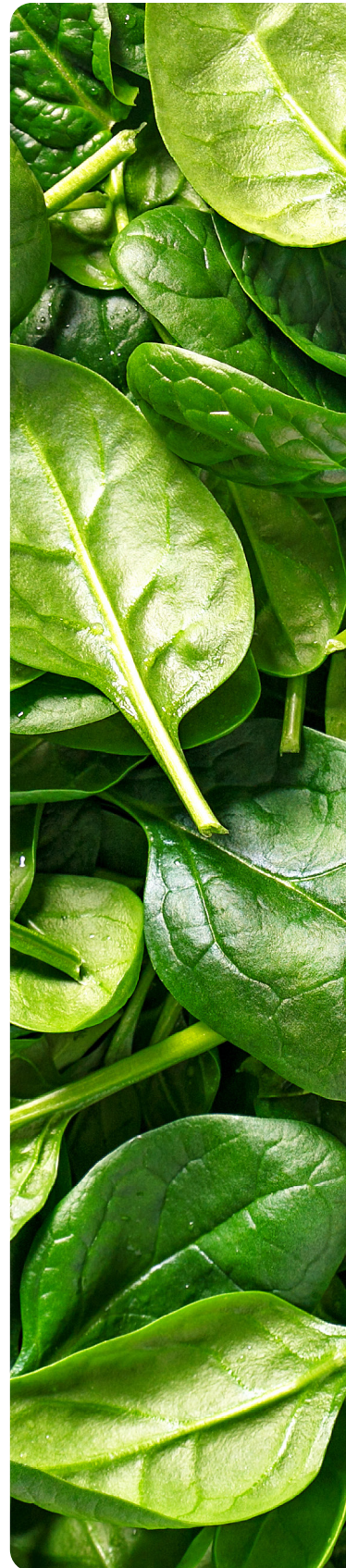
#### *Winter*

50 lb  $1\frac{1}{9}$  bushel cartons/crates




40 lb cartons/crates

35 lb cartons/crates

12 lb flats, 6 quarts





Commodity	Packaging
 <b>Sweet Potatoes</b>	800 lb bulk bins 40 lb cartons/crates 40 lb cartons, containing eight 5 lb bags 20 lb boxes 10 lb boxes 5 lb cartons/bags 28 lb ½ or ¾ bushel cartons 25 lb cartons, loose 20 lb cartons/flats, loose or layered
 <b>Tomatoes</b>	<i>Cherry</i> 15 lb flats, containing twelve 1-pint cups 5 lb cartons, containing nine 250-gram cups  <i>Mature Green</i> 25 lb cartons, loose 20 lb cartons, loose or layered 10 lb cartons, loose  <i>Greenhouse</i> 15 lb flats, 1-layer  <i>Plum or Roma</i> 25 lb cartons, loose
 <b>Turnips</b>	50 lb bushel basket/bags 40 lb cartons, bunched 25 lb half-bushel baskets/cartons/crates/bags 24 lb cartons, twenty-four 1 lb bags 20 lb cartons, bunched 12s



## Commodity

## Packaging



### Eggplant

#### *Chinese*

26 lb lugs

25 lb cartons

15 lb ½ bushel cartons/crates

#### *Italian*

26 lb lugs

15 lb ½ bushel cartons/crates

#### *Japanese*

15 lb ½ bushel cartons/crates





## Section V:

# Best Practices for Produce Logistics

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Following are some additional tips to help maintain the quality and safety of fresh produce during shipping:

- ✔ **Pack the fresh produce promptly after harvest.** The longer produce sits at ambient temperatures, the more likely it is to spoil.
  - ✔ **Use proper packaging materials.** The type of packaging material you use can help protect fresh produce from damage and spoilage. For example, pack fruits and vegetables in boxes or bags lined with a moisture-proof material.
  - ✔ **Keep produce cool and humid.** As mentioned above, the ideal temperature and relative humidity for shipping fresh produce vary depending on the type of produce. Use a temperature-controlled shipping container or truck to help maintain the proper temperature and humidity levels.
  - ✔ **Real-time tracking of shipment conditions** — including temperature and humidity, during produce transportation is a must.
  - ✔ **Inspect produce regularly.** Inspect produce regularly for signs of spoilage—such as mold, discoloration, or soft spots. If you find any signs of spoilage, discard the produce immediately.
- By following these tips, shippers can help to ensure that fresh produce arrives at its destination in good condition and ready to be consumed.

**For more best practices, read Tive's white paper,**



**Put Your Fresh Foot Forward: 14 Transportation Best Practices for Shipping Perishable Produce**





# The Value of Visibility in Produce Shipping

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Tive, a **multi-award-winning innovator** of real-time trackers and supply chain visibility solutions, understands the importance of monitoring temperature and humidity during produce transportation. This guide—combined with Tive’s technology and customer support—are invaluable resources for shippers tasked with safeguarding fresh fruits and vegetables from farm to fork with the highest degree of quality assurance.

Shippers using Tive’s **Solo 5G trackers** and **cloud platform** can monitor real-time data and get alerted the moment temperature or humidity excursions occur—enabling them to take swift and decisive action to save loads. A few examples are:

- **Alpine Fresh**, a grower, packer, and shipper of fresh fruits and vegetables, saved a \$90,000 shipment of asparagus bound for New Jersey and a \$120,000 blueberries shipment headed to Miami, thanks to Tive’s technology and its 24/7 Live Monitoring premium services.
- **Sun-Glo of Idaho**, a potato grower, received a real-time alert notification from the Tive cloud platform that a refrigerated truck experienced a malfunction in its cooling system. Sun-Glo contacted the driver, who fixed the problem immediately. Sun-Glo delivered its load on time and in full, avoiding a potentially significant insurance claim.

The ability to track temperature and humidity—in real time—is an investment worth making, with measurable ROI. However, the examples above and **this on-demand webinar** demonstrate that it is possible to measure the return on investment and make the business case for real-time visibility.

**Start a deeper conversation** with a Tive expert to learn more about the value of real-time tracking and visibility for produce shipping.

