JUPITER PRIME

Consulting • Training • Advisory

جوبيتر برايم للاستشارات والتدريب

COURSE BROCHURE

# Harvest-to-Port Cold Chain for Fresh Produce Training Course

28 February – 4 March 2027
Abu Dhabi

**jupiterprime.uk**

info@jupiterprime.uk

Registered in the United Kingdom and Saudi Arabia

# Harvest-to-Port Cold Chain for Fresh Produce Training Course

**Ref:** 2748_105046 **Date:** 28 February – 4 March 2027 **Location:** Abu Dhabi **Fees:** 5500 GBP

Harvest-to-Port Cold Chain for Fresh Produce is a 1-week training course for packhouse, agri-food logistics and export operations staff who move fruit and vegetables from the field to the ship, ending with a cold chain loss reduction plan for one produce flow. Every hour of field heat costs saleable weight and firmness. The course is delivered by Jupiter Prime Training.

## Why Harvest-to-Port Cold Chain for Fresh Produce Matters Now

Three forces shape this subject today. Overseas buyers reject consignments that arrive soft, wilted or mould-affected, and they increasingly ask for temperature records from the orchard gate onward. Cooling energy is costly, and frequent crew changes weaken handling discipline. An exporter that controls field heat, cooling speed and container settings ships produce that keeps its grade on arrival; one that does not pays for claims, downgrades and lost repeat orders. The course rests on recognised postharvest physiology and on the temperature and humidity ranges published for each commodity.

## Who Gains Most from Harvest-to-Port Cold Chain for Fresh Produce

- Packhouse supervisors responsible for receiving, grading, pre-cooling and palletising harvested produce
- Field operations coordinators who schedule picking times, field shade and transfer to the packhouse
- Export logistics officers who book refrigerated containers, set loading instructions and handle shipping documents
- Quality inspectors who sample consignments, record defects and release lots for dispatch
- Transport and cold store coordinators who run chilled trucks, holding rooms and port handover

Exporting farms and packing cooperatives gain most when field, packhouse and shipping staff attend together.

## Harvest-to-Port Cold Chain for Fresh Produce Capabilities

Participants trace field heat, bruising and moisture loss from picking to vessel loading.

- Calculate cooling time targets from pulp temperature readings — packhouse shift planning
- Specify container set points, ventilation and humidity for each commodity — export bookings
- Assess bruising, chilling injury and decay against grade limits — lot release decisions
- Design a temperature logging route from orchard to port — buyer evidence requests
- Weigh forced-air, hydro and room cooling options for a crop — capital spending choices
- Build a loss reduction plan with owners and checkpoints — farm and export managers

## Key Harvest-to-Port Cold Chain for Fresh Produce Terms

- Field heat — the warmth produce carries from the sun and soil at picking, which speeds respiration until removed.
- Pulp temperature — the temperature measured inside the flesh of a fruit or vegetable, not on its surface or in the air.
- Seven-eighths cooling time — the time needed to remove seven-eighths of the difference between produce and cooling air temperature.
- Chilling injury — damage such as pitting or browning caused when sensitive produce is held below its safe temperature.
- Refrigerated container set point — the delivery air temperature entered on a shipping container's cooling unit for the voyage.
- Ethylene — a natural ripening gas released by some produce that shortens the storage life of sensitive crops nearby.

## Harvest-to-Port Cold Chain for Fresh Produce Day by Day

### Day 1: Produce Physiology and Loss Points

- Respiration Rate Classes — Which Crops Need Cooling Within the Hour
- Moisture Loss and Wilting Curves — Humidity Targets for Holding
- Ethylene Producers and Sensitive Crops — Mixed Load Restrictions
- Harvest-to-Port Loss Mapping — Where Weight and Grade Disappear
- Buyer Arrival Specifications — Grade Tolerances That Trigger Claims

### Day 2: Field Handling and Packhouse Receiving

- Picking Time Windows and Field Shade — Reducing Field Heat Load
- Field Crate Selection and Stacking — Preventing Compression Bruising
- Transfer Time From Field to Packhouse — Setting Maximum Waiting Limits
- Receiving Bay Pulp Temperature Checks — Accept, Rush or Hold Decisions
- Washing, Sorting and Sanitising Water — Decay Risk at Grading Lines

### Day 3: Pre-Cooling and Cold Store Holding

- Forced-Air Tunnel Design and Airflow — Cooling Speed per Pallet
- Hydro-Cooling and Ice Cooling — Matching Method to Crop Type
- Seven-Eighths Cooling Time Calculations — Shift and Capacity Scheduling
- Cold Room Loading Patterns — Air Circulation and Hot Spot Control
- Carton Venting and Pallet Strapping — Airflow Through Packed Produce

### Day 4: Refrigerated Transport and Port Handover

- Chilled Truck Pre-Cooling and Door Discipline — Temperature Rise in Transit
- Container Set Points, Fresh Air Vents and Humidity — Voyage Settings
- Container Stuffing Plans and Floor Gaps — Return Air Paths
- Temperature Loggers and Probe Records — Evidence for Buyer Disputes
- Port Plug-In Times and Terminal Handover — Gaps in Cooling Custody

## Day 5: Practising the Cold Chain Loss Reduction Plan

- Arrival Inspection Sampling and Defect Scoring — Lot Release Records
- Applying Loss Mapping to a Chosen Produce Flow — Priority Losses
- Applying Cooling Time Targets to Packhouse Shifts — Capacity Gaps
- Applying Container Settings to an Export Route — Voyage Risk Review
- Cold Chain Loss Reduction Plan — Owners, Checkpoints and Measures

## Applying Harvest-to-Port Cold Chain for Fresh Produce After the Course

- Run a pulp temperature survey from picking to container loading for one crop and mark readings above target.
- Agree written container set points and stuffing patterns for the main export crop with the shipping line.

## Harvest-to-Port Cold Chain for Fresh Produce Questions FAQ

### What is Harvest-to-Port Cold Chain for Fresh Produce and why does it matter now?

It is the control of temperature, humidity and handling from picking to vessel loading. It matters now because buyers demand temperature records and field heat shortens shelf life.

### Which roles gain most from Harvest-to-Port Cold Chain for Fresh Produce training?

Packhouse supervisors, field coordinators, export logistics officers, quality inspectors and cold store coordinators gain most. Joint attendance helps agree one set of handover checks.

### How does Harvest-to-Port Cold Chain for Fresh Produce differ from a retail cold chain course?

It covers the upstream journey, from orchard and packhouse to the export container, rather than distribution centres and store shelves. The focus is field heat removal, pre-cooling methods and voyage settings for growers and exporters.

### What do you bring back from Harvest-to-Port Cold Chain for Fresh Produce training?

You bring back a loss reduction plan for one produce flow, with cooling time targets, container settings, logging points and named owners.

## Harvest-to-Port Cold Chain for Fresh Produce: The Way Forward

The cold chain loss reduction plan first informs packhouse shift and cooling capacity scheduling at peak harvest. Packhouse supervisors, export officers and quality inspectors use it to agree checkpoints and evidence with growers and shipping lines. After the first season, revisit arrival inspection results to decide which loss points deserve extra cooling investment or faster field transfer.