



### Food Processing Skills Canada

FPSC is your labour, skills and workforce development non-profit organization. Our job is to provide leadership in professionalizing the food and beverage manufacturing industry so that the most important resource - people - are the best in the world. We have developed a national skills strategy which is a proven long-term approach successfully utilized by other Canadian professional sectors. This strategy builds collaborations with industry, government, academia, unions, associations, community organizations and other stakeholders.



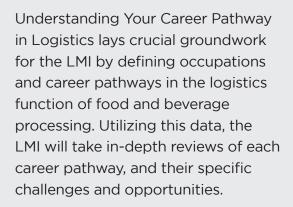
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### About Taking the Pathway

Canada's Agri-Food sector is a significant contributor to our nation's economy and was recently been identified as one of Canada's top growth industries over the next 10 years. Despite this, the sector continues to face a critical labour shortage that, if left unresolved, will impede the industry's growth, employment opportunities, and overall sustainability. To address this shortage, Food Processing Skills Canada (FPSC) has embarked upon a landmark Labour Market Information Study (LMI). In its finality, the LMI will provide government

ality, the LMI will provide government and decision-makers with the research needed to make regulatory change that will bring both prosperity and opportunity to the sector.



# How to use the Career Pathway

This document provides practical information about the career paths available for workers in logistics in the food and beverage processing industry. In a time when attraction and recruitment of workers is important to keep up with demand, the career pathway can be helpful to educate potential workers about the opportunities and career pathways within the area of logistics. The

career pathway is a helpful tool for employers to attract, recruit and retain productive and skilled workers.

# Developing the Career Pathway

To learn more about the career pathways in logistics in food and beverage processing, we conducted extensive research to learn about the various job positions and skill levels, including collecting and analyzing job descriptions, job advertisements, organizational charts and other occupational information from a variety of food and beverage processing facilities.



# logistics in food and beverage processing

Our research helped to identify key factors that are unique to the logistics function of the food and beverage processing industry:

### Logistics is linked to Food Safety Management Programs

Proper Receiving, Handling, Storage and Shipping are important aspects of the food safety management program to prevent the risk of biological, chemical or physical hazards. The management of inbound and outbound ingredients, materials and products is important to ensure food safety and traceability within a food and beverage processing facility. All members of the logistics and warehousing team play an important role in ensuring the production of safe, high quality food products.

# Inbound and Outbound Logistics

Overall, logistics can be separated into two main processes – inbound and outbound. Inbound logistics includes receiving, unloading and storing ingredients and materials that make up the inventory of the facility. Outbound logistics includes the packing and shipping of goods and products that are produced by the facility. Logistics is a very complex and ongoing process within a food and beverage processing facility, and it is very cyclical in nature.



# In-house vs. Third-Party Logistics and Coordination

Some facilities, particularly large processors, have their own logistics and transportation departments. In these cases, the dispatching, scheduling and transport of products is handled in-house. Other facilities may store their finished product on-site (i.e., warehousing), but the actual transportation logistics (including customs, scheduling, dispatching and transporting) is contracted out to a third-party provider. In addition, facilities may only have short-term storage on-site; in this case, transportation services (in-house or hired) transport product to facilities for long-term storage or warehousing.

# Understanding the Career Pathway

The career pathway for logistics in the food and beverage industry illustrates the progression of occupational levels from foundational skills to executive management. The career pathway is comprised of six (6) levels. The typical entry-point into logistics is at the Foundational Skill Level. With work experience and training (often offered on-the-job), workers can progress upward on the career pathway within the logistics department, which can include receiving, handling/warehousing, and shipping. This resource illustrates the potential progression of workers within and across the defined steps of the logistics function within a food and beverage processing facility.



# occupational levels

### Foundational Skill Level (FS)

Foundational Skill Level positions are often the entry-level positions or those jobs that require no prior experience or training to work in logistics. A high school diploma or equivalent is often considered an asset. Training for foundational skill level jobs most often occurs on the job; job shadowing is important for these entry-level positions.

### **Applicable NOC Code(s)**

NOC 75101 - Material handlers

NOC 65102 - Store shelf stockers, clerks and order fillers

Sample Titles for Foundational Skill Level Jobs within Logistics in food and beverage processing include:

- Preloader
- Order Picker
- Package handler
- Forklift operator
- Freight handler/loader/ unloader
- Labourer warehouse/storage/ material handling
- Loader/unloader
- Packer material handling

- Pick-up machine operator
- Pallet lift/loader operator; pallet truck operator; palletizer operator
- Stacker; stacker operator; stacking machine tender
- Stock helper; stock-keeper helper; stockpiler
- Storage person
- Warehouse worker/helper

### Semi Skill Level (SS)

Semi Skill Level workers typically have 6 months – 1 year of experience working in logistics. A high school diploma is often preferred but may not be required. Workers in this job class typically receive training on the job and may also receive Workplace Hazardous Materials Information System (WHMIS), food safety and food safety management system training, like Hazardous Analysis Critical Control Point (HACCP). Workers who start in Foundational Skill Level Positions often progress into Semi Skill Level positions as they gain additional experience and training.

### **Applicable NOC Code(s)**

NOC 94143 - Testers and graders, food and beverage processing

NOC 14402 - Production logistics workers

NOC 14403 - Purchasing and inventory control workers

NOC 14400 - Shippers and Receivers

Sample Titles for Semi Skill Level Jobs within the Logistics sector include:

Warehouse shipper/associate

- Shipping/Receiving clerk
- Order desk attendant
- Shipping clerk/checker
- Food and beverage control clerk - inventory
- Food controller inventory
- Inventory planner/clerk

- Procurement clerk
- Freight receiver/receiver clerk/ shipper/checker
- Stock handler/receiver
- Warehouse shipper/receiver/ receiving clerk
- Milk receiver-tester
- Produce tester food and beverage processing

### High Skill Level (HS)

High Skill Level Workers typically have at least 1 year of experience (typically 1-3 years) in logistics and are familiar with all stages of the logistics process. A high school diploma is an asset. Additional training related to supervising workers may be provided in-house or acquired through continuous learning. Workers in Semi Skill Level positions often advance to High Skill Level positions as they gain additional experience and training.

#### **Applicable NOC Code(s)**

NOC 13200 - Testers and graders, food and beverage processing

NOC 13201 - Production and transportation logistics coordinators

NOC 12102 - Procurement and purchasing agents/officers

Sample Titles for High Skill Level Jobs within logistics include:

- Expediter
- Customs officer
- Purchasing clerk
- Purchasing and inventory management coordinator
- Shipping coordinator
- Transportation coordinator
- Cargo/freight agent

### Supervisory Skill Level (S)

Supervisory Skill Level workers typically have 2-3 years of experience in logistics. Additional training in logistics, scheduling and coordination, supervision and employee management may be required and provided by the company. A high school diploma or equivalent is often required; additional post-secondary education is an asset. It is typical for supervisors to begin at the Foundational Skill Level, and through experience and additional training, move up into supervisory roles. Supervisors are often required to complete WHMIS, food safety and food safety management system training.

### **Applicable NOC Code(s)**

NOC 12013 - Supervisors, supply chain, tracking and scheduling coordination occupations

Sample Titles for Supervisory Skill Level Jobs within logistics include:

- Head shipper
- Inventory control supervisor
- Inventory clerks supervisor
- Logistics supervisor
- Purchasing clerks supervisor
- Warehouse supervisor

### Management Skill Level (M)

Management Skill Level workers typically have a minimum of 5 years of supervisory experience in logistics. Leadership experience is considered an asset. A post-secondary education may be required or considered a strong asset. Additional training in management is often required of job incumbents. Managers often require WHMIS, food safety and food safety management system training.

### **Applicable NOC Code(s)**

NOC 90010 - Manufacturing manager NOC 70012 - Facility operation and maintenance manager

Sample Titles for Management Skill Level Jobs within Logistics include:

- Warehouse manager
- Inventory manager
- Warehouse operations manager

### Senior Executive Leadership Skill Level (SE)

Senior Executive Leadership Skill Level workers typically have extensive experience (e.g., 7-10+) years within logistics in the food and beverage processing industry or other sector. They are responsible for managing corporate affairs and lead the strategic direction and vision of the overall organization. Skills in organizational management and business administration are critical.

### **Applicable NOC Code(s)**

NOC 90010 - Manufacturing manager

Sample Titles for Senior Executive Leadership Skill Level Jobs within the Industrial Baking sector include:

- Director of Warehousing
- VP of Logistics

# steps in food processing logistics

Logistics can be viewed as a continuous cycle, with materials being received and shipped on a regular basis. The cycle consists of 4 main steps including: Receiving, Handling, Warehousing/Storage, and Shipping. In many cases, employees will complete tasks associated with more than one step of the process.

#### **STEP**

#### **KEY TASKS AND RESPONSIBILITIES**

#### Arrival

Designated employees inspect goods and materials as soon as they are received to ensure the established specifications like: product temperature, product type and quantity; packaging conditions, etc.

Designated employees are responsible for verifying and documenting:

- incoming raw materials all are from an approved supplier
- cleanliness of the truck no foreign material, dirt, odours, rodents, insects or other pests
- temperature of the truck proper level to maintain products, according to specifications
- condition of door seals close-fitting doors with no spaces at sides or bottom
- general truck conditions no cracks, insulation in good condition, etc.

#### Loading and Unloading

Designated employees who are responsible for loading and unloading received good and materials:

#### **RECEIVING**

- follow company sanitation and hygeine procedures at all time
- package the food products in suitable containers to prevent both damage and spoilage
- verify that proper product temperature is maintained

#### Documentation

Designated employees are responsible to completing important documentation when food products, goods and materials are received. Documentation is a critical component of traceability, and the ability to be able to trace shipmnets in the case of a recall.

Specific product information that should be documented upon receiving include:

- time of receipt
- type of product
- ingredient and product packaging
- labeling
- lot number
- pallet tag, quantity, size and weight.

Adapted from "Food Safety for Processors and Distributers: Fact Sheet #12. Shipping Receiving, Handling and Storage." Manitoba Food Safety. Accessed from: <a href="https://www.gov.mb.ca/agriculture/food-safety/at-the-food-processor/food-safety-program/pubs/fs\_12.pdf">https://www.gov.mb.ca/agriculture/food-safety/at-the-food-processor/food-safety-program/pubs/fs\_12.pdf</a>

STEP	KEY TASKS AND RESPONSIBILITIES
HANDLING	Designated employees who are handling food products, goods and materials must follow Good Manufacturing Practices (GMP) at all times.  Safe handling procedures should include controlled temperature, humidity, personal hygiene, etc. These practices and procedures protect materials, goods and products from contamination by pests, microbiological, physical and chemical hazards, and spoilage.
WAREHOUSING/ STORAGE	Designated employees play a key role in ensuring that products are stored adequately to maintain the integrity of packaging and the pallets. This includes:  • allowing maximum air circulation and stock rotation  • assigning different storage areas for different products (i.e., ingredients, raw materials, finished products) to avoid cross contamination  • using products (e.g. ingredients, raw materials) within the manufacturer's specified time period to follow shelf life requirements.  • ensuring proper rotation of food and packing materials – i.e. First In, First Out (FIFO) to minimize food product contamination, damage and spoilage.
SHIPPING	Designated employees are responsible for inspecting and documenting the condition of trucks, containers and carriers when prepping for outbound shipping. This includes:  • verifying the cleanliness of truck  • checking for odours and obvious dirt/contamination  • checking for chemical contamination (like fluids, powders, chemical residues)  • verifying temperature of truck based on goods  • ensuring temperature measuring devices will work during transport  Documentation  Designated employees must keep log of inspection and cleaning tasks. These logs indicate type of loads, cleaning and sanitation procedures for equipment, inspection, issues cited, etc.

# logistics

POSITIONS/ CAREER PATHWAY

- M MANAGEMENT
- S SUPERVISORY
- HS HIGH SKILL
- SS SEMI SKILL
- FS FOUNDATIONAL SKILL

SAMPLE TITLE	EXPERIENCE / EDUCATION
• Director of Warehousing • VP Logistics	<ul> <li>7-10 years of experience in the logistics industry is the most significant requirement</li> </ul>
<ul> <li>Warehouse Manager</li> <li>Warehouse Operators Manager</li> <li>Inventory Manager</li> </ul>	<ul> <li>Minimum of 5 years of experience in shipping/logistics</li> <li>Additional training/certification in logistics</li> <li>Leadership experience</li> </ul>
<ul> <li>Head Shipper</li> <li>Inventory Control Supervisor</li> <li>Warehouse Supervisor</li> <li>Logistics Supervisor</li> </ul>	<ul> <li>3-5 years of experience in logistics</li> <li>Additional training in logistics considered a strong asset</li> <li>Supervisory experience is an asset</li> </ul>
<ul> <li>Customs officer</li> <li>Expeditor</li> <li>Purchasing Clerk</li> <li>Shipping Coordinator</li> <li>Cargo/Freight Agent</li> </ul>	<ul> <li>Minimum 1 year of experience as a Shipper/Receiver is often required</li> <li>High School Diploma often required; extra training may be considered an asset</li> </ul>
<ul> <li>Warehouse Shipper</li> <li>Shipper/Receiver</li> <li>Purchasing and Inventory Clerks</li> <li>Production Logistics Workers</li> <li>Tester and Grader</li> <li>Various titles depending on facility</li> </ul>	<ul> <li>Experience as a material handler/ order picker may be required</li> <li>Some High School education may be considered an asset</li> </ul>
<ul> <li>Material handlers</li> <li>Order Picker</li> <li>Package Handler</li> <li>Warehouse worker, helper</li> <li>Various titles depending on facility</li> </ul>	<ul> <li>No experience required</li> <li>Some High School education may be considered an asset</li> </ul>

### logistic competencies

The Food Skills Library outlines a range of competencies (i.e. skills and knowledge) associated with the four stages of logistics - Receiving, Handling, Warehousing/Storage and Shipping. Competencies are performed by employees of varying skill level and responsibility within the facility.

### Logistics

#### **MANAGE INVENTORY**

- Establish inventory system
- Maintain inventory system

- Manage problem inventory
- Complete cycle counts

#### HANDLE INVENTORY

- Pick and pack orders
- Prepare product for shipping
- Load product
- Receive product

- Unload product
- Provide inventory to production
- Follow storage procedures
- · Receive live fish and seafood

#### **MANAGE WAREHOUSE**

- Plan warehouse operations
- Develop warehouse plan

Oversee warehouse operations

### MANAGE TRANSPORTATION

- Design transportation network
- Determine carrier requriements
- Select carrier
- Obtain transporation insurance

## sample logistics flowchart

FOLLOW THE PROCESS OF COFFEE PROCESSING. FROM RECEIVING TO SHIPPING:





#### WHO

- Tester Grader
- Receiver

#### WHAT

- Verify the correct shipment
- Confirm quality
- Prepare documentation





Coffee Beans are Brought into Facility

- Material Handlers
- Package Handlers
- Beans are handled following Good Manufacturing Practices (GMP)
- Workers ensure the beans are kept at the right temperature and humidity
- Beans are stored in appropriate containers/packaging to ensure food safety and prevent contamination



Coffee Beans are Stored until Ready for Processing

- Productions Logistics Workers
- Inventory Control Supervisor
- Warehouse Supervisor
- Beans are stored following GMP and safe handling procedures to allow maximum air circulation
- Beans are kept in separate storage areas for different products (i.e., ingredients, raw materials, finished products) to avoid cross contamination
- Product inventory (e.g. ingredients, raw materials) is used within the manufacturer's specified time period to follow shelf life requirements
- Beans are properly rotated i.e. First In, First Out (FIFO) to minimize food product contamination, damage and spoilage
- Beans are brought to the processing/ production area based on production schedules
- Proper handling of in-process coffee beans is critical as exposure to air can start to cause spoilage throughout the coffee processing stages



Processed Beans and Coffee Products are Prepared and Shipped

- Warehouse Supervisor
- Head Shipper
- Logistics Supervisor
- Customs Officer
- Expeditor
- Shipping Coordinator
- Cargo/Freight Agent
- Warehouse shipper
- Material Handlers
- Order Picker
- Warehouse Worker

- Processed beans and coffee products need to be master packaged (i.e., palleted, etc.) according to shipping requirements and customer orders
- Scheduling and shipping documentation is critical at this stage to ensure that the finished coffee makes it to the right customer on time, and without damage to the shipment

### logistics

#### CAREER PROGRESSION

The following graphic illustrates a typical career progression within logistics in the food and beverage processing sector.

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- **MANAGEMENT**
- **SUPERVISORY** S
- **HS HIGH SKILL**
- SS SEMI SKILL
- **FS FOUNDATIONAL SKILL**





#### **HANDLING**

### WAREHOUSING



Director of Warehousing

**VP of Logistics** 



- Warehouse Manager
- Warehouse Operations Manager
- Inventory Manager



- Head Shipper
- **Inventory Control Supervisor**
- Inventory Clerks Supervisor

- Logistics Supervisor
- **Purchasing Clerks Supervisor**
- Warehouse Supervisor



- Expeditor
- **Customs Officer**
- **Shipping Coordinator**
- **Transportation Coordinator**

- Cargo/Freight Agent
- **Purchasing Clerk**
- Inventory Clerk
- Purchasing and Inventory Management Coordinator



- Receiving Clerk
- Grader/Tester (receivables)
- Stock Handler
- Food and beverage control clerk
- Warehouse Associate
- Inventory Planner
- Procurement Clerk
- Shipping Clerk
- Order Desk **Attendant**



- Material Handler
- Freight Unloader
- Material Handler
- Packer
- Stock Helper
- Material Handler
- Stacker
- Pallet Truck
- Material Handler
- Order Picker
- Pick-up Machine Operator

- Stock Helper
- Operator

## appendix a

### LOGISTICS

LEVEL/NOC	TITLES	DESCRIPTION/DUTIES	EXPERIENCE/ EDUCATION
Executive Leadership Skill Level  NOC 90010 - Manufacturing Manager	<ul> <li>Director of warehousing</li> <li>VP of Logistics</li> </ul>	<ul> <li>Strategic planning/contributing to strategic planning for the organization in area of logistics</li> <li>Identify opportunities to eliminate waste, add value, maximize yield and develop solutions by initiating team-based studies and trials related to logistics process improvement</li> <li>Develop and implement continuous improvement strategies in the organization</li> <li>Set and monitor budgets</li> <li>Oversee quality control, inventory management, and finished product warehousing and transfers</li> <li>Lead, motivate and coach all employees to drive performance</li> <li>Identify and implement capital projects/ physical facility improvements such as technology upgrades</li> <li>Track and ensure that regulation changes are implemented throughout the organization</li> </ul>	• 7-10+ years of experience in the logistics industry
Management Skill Level  NOC 90010 - Manufacturing Manager  NOC 70012 - Facility Operation and Maintenance Manager	<ul> <li>Warehouse Manager</li> <li>Warehouse Operations Manager</li> <li>Inventory Manager</li> </ul>	<ul> <li>Provide leadership and direction to logistics staff</li> <li>Plan, organize, direct, control and evaluate the logistics operations of the facility</li> <li>Direct quality control inspection system and develop logistics reporting procedures</li> <li>Plan and manage logistics budget</li> <li>Collect and report plant data related to logistics and warehousing</li> <li>Ensure customer satisfaction by verifying shipping schedules are met</li> <li>Maintain inventory of raw materials and finished products</li> <li>Ensure all SOPs are developed, used and maintained</li> <li>Ensure compliance with all regulatory requirements and guidelines</li> <li>Lead and manage employees</li> <li>Collaborate with other organization departments to meet corporate goals</li> </ul>	<ul> <li>Minimum of         <ul> <li>5 years of                 experience                 shipping/                 logistics</li> </ul> </li> <li>Additional training/                 certification                 in logistics                 is a strong                  asset</li> <li>Leadership                  experience</li> </ul>

### appendix a

### LOGISTICS

### **Supervisory Skill** Level

NOC 12013 -Supervisors, supply chain, tracking and scheduling coordination occupations

- Head shipper
- Inventory control supervisor
- Inventory clerks supervisor
- Logistics supervisor
- Purchasing clerks supervisor
- Warehouse supervisor

- Supervise, co-ordinate and schedule the activities of logistics workers
- Establish methods to meet work schedules and coordinate work activities with other departments
- Resolve work problems and recommend measures to improve productivity
- Train staff in job duties, safety procedures and company policy
- Recommend personnel actions such as hirings and promotions
- Prepare logistics and other reports

- 3-5 years of experience in logistics
- Additional training in logistics considered a strong asset
- Experience in supervising others is an asset.

### High Skill Level

NOC 13200 -Customs, ship and other brokers

NOC 13201 -Production and transportation logistics coordinators

NOC 12102 -Procurement and purchasing agents/ officers

- Expediter
- Customs officer
- Purchasing clerk
- Purchasing and inventory management coordinator
- Shipping coordinator
- Transportation coordinator
- Cargo/freight agent

- Provide direct supervision to shippers/receivers and other warehouse staff
- Provide guidance and direction to warehouse and logistics staff as required
- Ensure safety and efficiency of logistics processes completed by shippers/ receivers and warehouse staff
- Minimum 1 year of experience as a Shipper/Receiver is often required
- High School Diploma often required; extra training may be considered an asset

### appendix a

### LOGISTICS

### Semi Skill Level

NOC 94143 - Testers and graders, food and beverage processing

NOC 14402 -Production logistics workers

NOC 14403 -Purchasing and inventory control workers

NOC 14400 -Shippers and receivers

- Warehouse shipper/ associate
- Shipping/Receiving clerk
- Order desk attendant
- Shipping clerk/checker
- Food and beverage control clerk – inventory
- Food controller inventory
- Inventory planner/clerk
- Procurement clerk
- Freight receiver/receiver clerk/shipper/checker
- Stock handler/receiver
- Warehouse shipper/ receiver/receiving clerk
- Milk receiver-tester
- Produce tester food and beverage processing

- Inspect incoming goods, products and materials
- Prepare inventory reports, including order and intake forms
- Operate various machinery and equipment as required to prepare products for shipment
- Experience as a Material Handler/ Order picker may be required
- Some High School education may be considered an asset

### Foundational Skill Level

NOC 75101 - Material handlers

NOC 65102 - Store shelf stockers, clerks and order fillers

- Preloader
- Order Picker
- Package handler
- Forklift operator
- Freight handler/loader/ unloader
- Labourer warehouse/ storage/material handling
- Loader/unloader
- Packer material handling
- Pick-up machine operator
- Pallet lift/loader operator; pallet truck operator; palletizer operator
- Stacker; stacker operator; stacking machine tender
- Stock helper; stockkeeper helper; stockpiler
- Storage person
- Warehouse worker/ helper

- Transport raw materials, finished products and packaging materials throughout facility and warehouse manually, or with powered equipment
- Prepare customer orders
- Feed flattened boxes into forming machines to construct containers
- Move filled containers from conveyors and manually pack goods into bags, boxes or other containers
- Clean work areas and equipment
- Check packaging for basic quality defects
- Assist other warehouse workers, including shipping/receiving by moving product around the warehouse

- No experience required
- Some High School may be considered an asset



### Food Processing Skills Canada (FPSC)