

Logistics – such an interesting term..... When you say this word what comes to mind?

Simply - Having the right thing, in the right place, at the right time

(Reference: Canadian Association of Logistics Management, <http://www.calm.org/calm/AboutCALM/AboutCALM.html>, 12 Feb, 1998)

The process of planning, implementing, and controlling the efficient, cost effective flow and storage of raw materials, in-process inventory, finished goods and related information from point of origin to point of consumption for the purpose of meeting customer requirements

So how does Logistics fit into our “interaction wheel”?

As with most departments or activities in a food business, Logistics does not work alone.

Customer requirements are provided through Marketing and Sales; these are then specified and quantified through Product Development and Quality Assurance activities. Production and Procurement rely on Logistics to ensure raw materials and packaging arrive on time and in the correct condition as well as ensure the Finished Goods are stored, shipped and arrive in the prescribed location, at the prescribed time and in the expected condition.

The efficiency and coordination of the logistics function have profound effects on the financial side of the business as it affects cash flow and the cost of goods sold. And most importantly, customer satisfaction.

SESSION OUTLINE

- Procurement
- Receiving
- Warehousing / Storage
- Shipping
- Collaboration

In this session we are going to investigate the mechanics of the Logistics process and the functions that are responsible or the various activities that together create the amazing orchestration known as LOGISTICS.

These include Procurement, Receiving, Storage, and Shipping

And through these activities there is constant collaboration.

LOGISTICS PROCESS



Now let's consider a product – please, while we are discussing this specific example think of one of your own products.

To produce our product we need to obtain ingredients, bottles, caps, bottle labels, shrink seals over the cap, the boxes and case labels. Even the pallets that will be used to store and ship the finished product.

All of these items must be purchased and shipped from the suppliers (Point A s) to the Manufacturer (Point B) where the ingredients are transformed into the finished product that is then shipped out to the various customers (Point C s)

Do you have a product that follows these stages to complete the finished product? Does anyone have a product that does not follow these stages?

Even if you are using a contract manufacturer to produce the product or purchasing a product from another company for resale these stages are still required, the players may be outside your

company for some of these activities.

PROCUREMENT

Also known as Purchasing / Buying

- **Recipe or Formulation**
 - Raw Materials, Packaging, Supplies

- **Sales Forecast or Orders**
 - Quantity to order

This is generally thought to be the first stage in LOGISTICS but it actually starts much before the Purchasing activity.

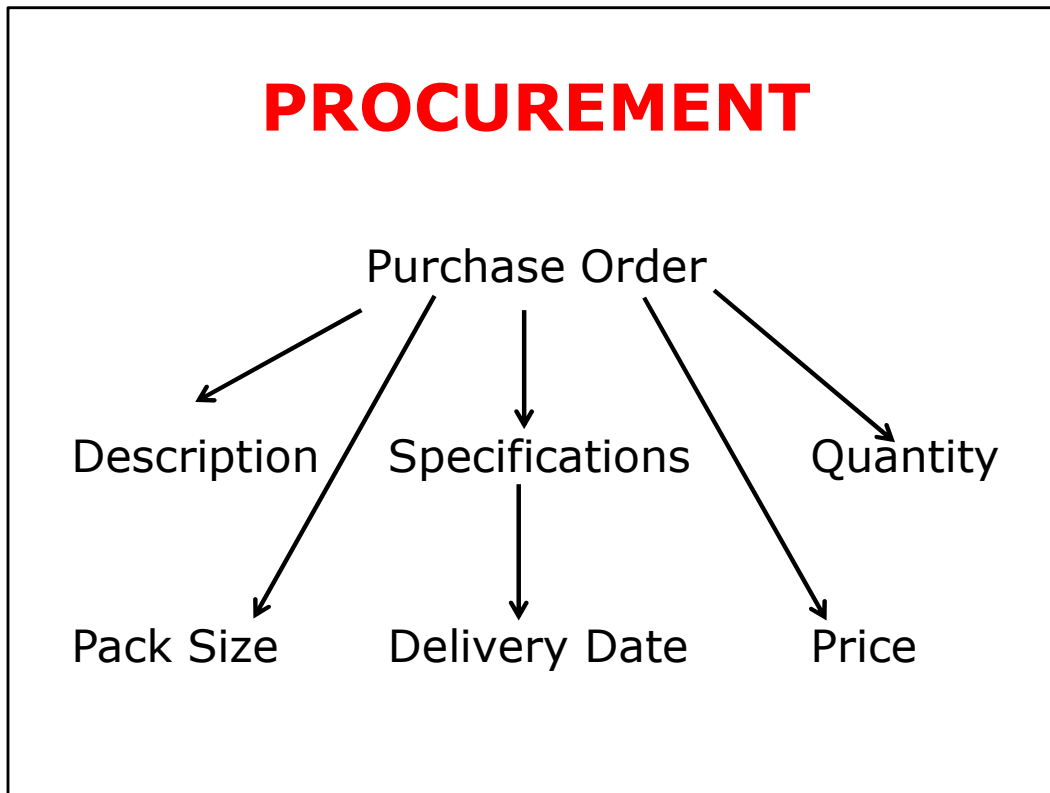
How do we know what to purchase?

The Purchasing function orders/buys raw materials, packaging, labels, supplies used to manufacture the products to the Customer's expectation.

They have the recipe or formulation provided from Product Development

They have the Sales projections or Customer orders

They calculate the amount of each material, packaging, labels in order to place the PURCHASE ORDER with each Supplier.



To successfully procure the correct materials for the finished product we need to produce documents to communicate this information to the various members of our process.

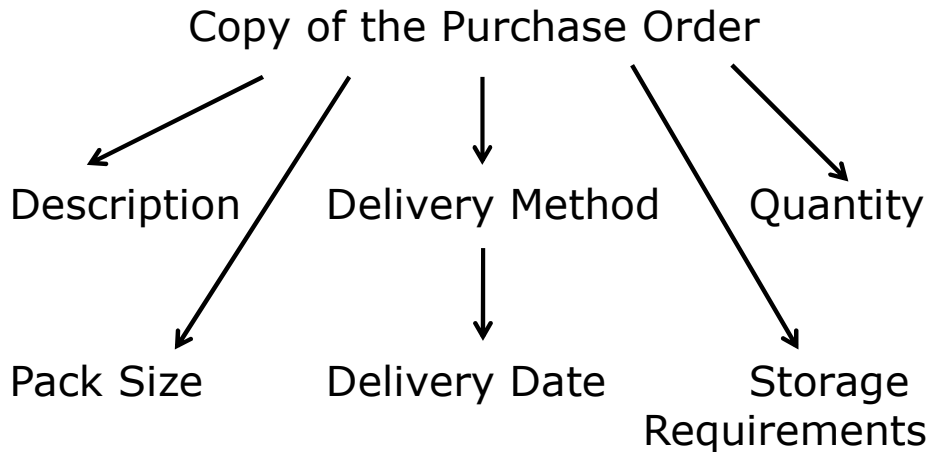
Product Development and Quality Assurance have created Specification Sheets for each raw material, packaging material, label indicating the properties of that material with preferred or qualified suppliers.

NOTE: a qualified Supplier is one that has proven that they can provide the product to the specifications including shipment and approved price.

Purchasing may also add components to the qualification of a supplier such as historical shipments, on time delivery, price, payment terms, discounts, ability to supply additional volumes of materials for future growth, and service level.

There may be some aspects of a product that may require additional documentation for each shipment or periodically such as Organic Certificates, Kosher Certification, HACCP qualification, Certificates of Analysis, etc.

SHIPPING / RECEIVING



The Purchase Order is the document that conveys the information to the respective departments; in this case to the Shipping/ Receiving or Transportation Department.

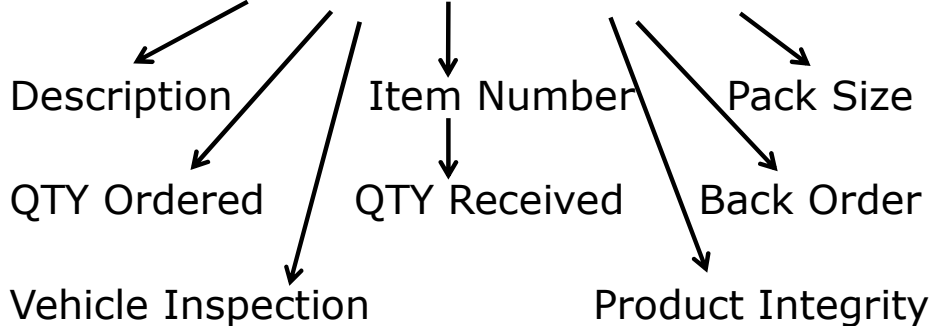
There may be situations where this Department will contact the supplier and arrange the shipment of the various materials; depending upon who is organizing and paying for the freight.

This information will be specified on the Purchase Order (Sample in Workbook)

Small companies generally rely on using LTL (Less than Load) shipments and relying on contract Transport companies for the physical delivery.

RECEIVING

Copy of the Purchase Order Packing Slip / Lot Numbers / Receiving Log



Upon receipt of the items from the Suppliers, the Receiver will inspect the vehicle to ensure it does not contamination the goods, the condition or integrity of the goods, and locate the Packing Slip.

The Packing Slip should be a mirror of information of the Purchase Order in terms of the product Identity, the Pack Size, the Quantity shipped, specific item or identity codes, any back orders (items and/or quantities not shipped) and should contain the Purchase Order Number.

The items should have a lot number to allow for tracking of the materials from Supplier to its use in a Finished Product.

Once verification of the Packing Slip with the Purchase Order is complete the paperwork should be returned to the appropriate person for data entry or to the Purchaser to confirm receipt of the goods. The data entry also provides for tracking of the items, quantity and lot number for warehousing purposes.

Receiving Log is a chronological listing of all shipments received based on date and time of receipt. (example in workbook)

WAREHOUSE – PRODUCTION

- **Assemble / Pick ingredients, packaging**
 - Item description and quantity required

- **Ensure FIFO rotation**

- **Return excess goods to warehouse**

The approved goods are now secured within the warehouse in the designated area. An organized, clean warehouse will save you substantial quantities of money. Less time (labour) to search for items, less loss to damage of excessive movement, whether by hand or by forklift, less loss to infestation by pests, and ultimately less loss of production time and delay in selling the finished product or short shipping product due to losses at the warehouse level.

When a Production Run is scheduled the Warehouse person selects or picks and assembles the ingredients, packaging and supplies for the Production employees.

The Warehouse person may have a list of the ingredients and quantities needed or a copy of the recipe or when using a computerized inventory system the report is considered a Requirements Report.

As many ingredients have a limited shelf life it is imperative for quality of the ingredient that the oldest stock is used before newer stock, this is considered FIFO (First IN First OUT) rotation.

At the end of the Production Run the Warehouse person returns the materials to the designated area within the warehouse.

NOTE: segregation of some items may be required due to specifications such as ORGANIC or KOSHER and some for food safety reasons such as ALLERGENS, or temperature control. These areas can be effectively managed through bright colour coding of the specific areas within the warehouse or racking and corresponding colour coding or labeling of the specific items when they are received.

SHIPPING

Copy of Sales Order



The customer will purchase products using their Purchase Order which once it is entered at your company it becomes your SALES ORDER.

The information generally provided includes the Company details, the Description of the product, the Pack Size, the Quantity, the Delivery Date, Delivery method, and the Price, Payment terms, and Currency.

SHIPPING

➤ **Picking the Order (Pick List)**

- Selects Items, the Quantity based on FIFO
- Arranges the Shipping boxes on the Shipping pallet
- Records the Lot Numbers of each Finished Product

➤ **Preparing the Packing List**

- Mimics the Sales Order for information
- Records Actual Quantity Shipped; any backorders
- Records Lot Numbers

The product is now ready to be shipped to the customer!

The Shipper will pick the order based on a Pick List or Packing List.

This document will specify the Customer, the Items to select, the Quantity, and the Lot Number of the Finished Goods.

A copy of the Packing List will be attached to the pallet of goods, generally in a plastic packing slip envelope and on the outside of any outer shrink wrap or covering of the products. It is a record of what is contained on the pallet. This also helps the Receiver at the Customer's facility to identify what goods are on the pallet, particularly when the pallet contains a mixture of products.

The Lot Numbers of the Finished Goods are also included on this document to enable tracking of the product in the event of a product recall or withdrawal.

SHIPPING

- **Selecting the method of shipment**
 - Special temperature constraints, time constraints
- **Who owns the product and when does it change?**
 - FOB, our plant
 - Prepaid
 - Prepaid and Charge
 - COD

The actual shipping or transporting of the finished products is determined by mutual agreement between customer and seller.

There are also product considerations such as temperature and time.

The type of shipping and activities associated with the transport will be dependent upon when ownership of the goods is transferred. (Various scenarios are provided in the workbook).

Most commonly ones used include:

FOB – free on board – the customer assumes ownership the moment the product leaves the place/location stated on the shipping manifest.

Prepaid – the Shipper pays for the shipment

Prepaid and Charge – the Shipper pays for the shipment but charges them back on the invoice to the Customer

COD – Collect on Delivery – driver collects the value of the goods on behalf of the shipper. The monies must be collected before the freight can be released to the consignee (Customer).

SHIPPING

Shipment Time!

- Inspection of Vehicle
- Product Inspection
- Documentation
 - Packing Slip, copy to be signed by Driver
 - Bill of Lading
 - Customs Documents
 - Shipping Log

Now you are ready to ship the finished goods! The vehicle has arrived – in most cases a truck.

Before loading the product onto the vehicle it is best to inspect for off odours, leakage or damage to the interior and exterior of the vehicle; if a reefer truck then take the temperature of the interior of the truck; check for rodents or non-compatible materials that are also contained in the truck. Also, ask the truck driver for company ID, particularly if a new company and/or a new driver.

The vehicle arrives at your facility ready to pick up the pallet(s) or boxes of goods. The pallet contains the Packing Slip; if shipping individual cases through a courier it is best to label each case with the destination information and number the cases as part of the total, i.e. if 6 cases in total, label 1 box of 6; 2 box of 6, 3 box of 6, etc. Check the product integrity prior to loading – sometimes it is best to take a picture of the shipment prior to the truck leaving.

Documentation

The packing slip is attached to the product but another copy is to be signed as proof for you that the product has been taken from your premises/ transfer of ownership. (examples in the workbook)

Bill of Lading or Shipping Manifest – generally the specific trucking company document that includes the consignor and consignee, identifies who is paying for the shipment, the actual destination of the shipment, the contents in general terms, the weight and number of units or pallets. (examples in the workbook)

Customs Documents when shipping across international borders that in addition to the standard information will also include the value of the shipment and Customs tariff codes where duties will also be assessed, if applicable. (examples in the workbook)

Shipping Log is a chronological listing of the shipments that have been made based on date and time. (Example in the workbook)



This Logistics Module shows the critical role that LOGISTICS plays to ensuring the success of your food company, but again it cannot do it alone.

It requires the collective intellect and input of the other departments.

It takes knowledge of what and how much the customer wants through information from Marketing and Sales; the actual recipe is supplied by Product Development; the specifications of the raw materials and packaging from Quality Assurance; the actual product supplied by Production; and the Finance Department providing the budget and assisting in shipment details, particularly for financial and insurance responsibilities.

NEXT LEVEL

1. Determine processes for shipping to the USA.
2. Determine processes for shipping internationally
3. Investigate regulations; customs, tariffs, etc.
4. Identify required paperwork
5. Determine procedures to make a Claim

This level you have learned the basics of logistics which involves all departments but the specific activities are conducted by Purchasing, Transportation, and Warehousing professionals.

In a small operation many of these activities are conducted by a single person but it is critical to understand the roles and responsibilities of each set of activities, particularly as your business grows and you start to delegate these responsibilities.

The next level will delve into greater detail for shipments that arrive or are destined for overseas.

FEEDBACK, PLEASE

Please take a few minutes to assist us by providing feedback as to the content and delivery of this module.

We would appreciate if you would provide your name and contact details to follow up for more details as we want these modules to constantly be relevant to food business owners. We appreciate all input, positive and less than positive!