Process Walkthrough at a Regional Meat Distribution Center

Prepared for NC Growing Together
September 2014

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Purpose of this Slide Set

This slide set is designed to introduce niche meat vendors to the warehouse management systems through which meat moves from the vendor delivering product to the warehouse to shipment from the warehouse to the retailer.

The set covers the processes of arrival, unloading, quality control, receiving, placement in inventory, selection from inventory, and preparation for delivery.

The set also includes tips that can help vendors have favorable experiences when working with a large warehouse distributor.

Arriving Process

THE PROCESS

1. Drivers check in with security.

2. Security checks driver credentials, and confirms whether or not the appropriate loading dock is available.

3. If not, drivers must wait in a "staging area" (typically part of the facility parking lot)

Typically, Quality Control inspection and receiving is done between certain hours. If a driver arrives too late, it is likely the driver will wait in the staging area until the next day.

A positive vendor relationship starts with an **on-time arrival** and **courteous and professional interactions** through the entire delivery process.

Unloading Process

4. Once the assigned loading dock is ready, the driver docks, then enters the warehouse to check in with the warehouse logistics/receiving office.

5. The driver tells the receiving office if they will be unloading the truck themselves or if they will hire a 3rd party unloading company.

6. The receiving office prints out a Purchase Order and a receiving sticker pack for the inbound load.

IT Optimization Systems

Most Regional Distribution Centers (RDC) operate using warehouse management Information Technology (IT) systems that track what is incoming, where it should be stored, and orders and movement of product to trucks for shipment out.

Warehouse management systems for large distributors utilize sophisticated wireless radio frequency (RF) and voice activated technology to automate location and task management.

Warehouse personnel wear headsets that allow the system to communicate the location of product for storage and retrieval, and guide and confirm the accuracy of orders as the are filled by lift-driving "Pickers" who collect items from warehouse slots to then load onto delivery trucks.

Warehouse management systems also assist with QC. For each product in inventory, a shelf life is specified when setting up the item code. The computer creates a list of products that are nearing the end of shelf life so that QC personnel can re-inspect the product.

Unloading

7. Meat gets unloaded on pallets by the driver or a 3rd-party (paid) unloader.

Receiving

8. The receiver picks up the stickers, POs, Temperature Log, Thermometer, and Triceps scanning wand.

Receiving

9. The receiver inspects for any case leakage (cases found leaking are immediately rejected).
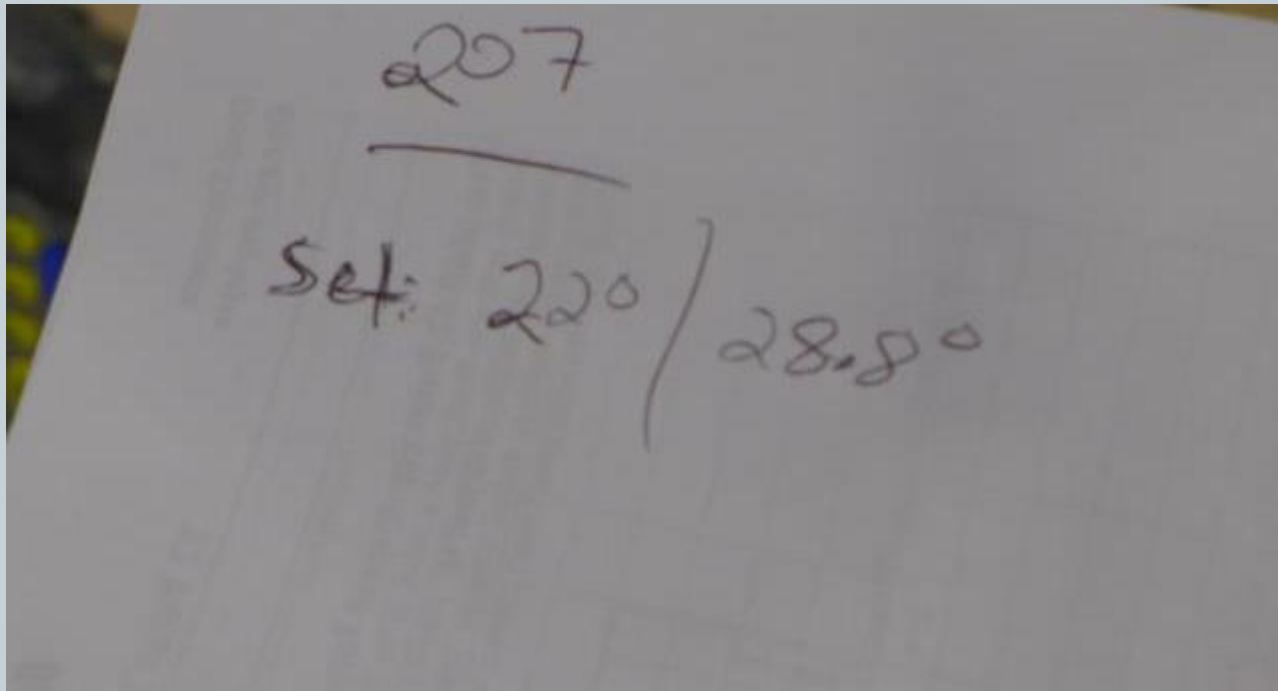
Receiving

10. The receiver takes a temperature reading in the boxes from three critical load points -- "rear", "middle", "nose" (Meat must be 40F or less. If meat is over 40F, it is immediately rejected)

Receiving

11. The receiver checks the "set temp", which is the temperature at which the reefer (refrigerated truck) unit is set (Here, the receiver has written the dock number and the set temperature by hand on a piece of scrap paper)

Receiving

12. The receiver enters the "set temp", case temp, PO#, and other information in the Temperature Log

Receiving

13. Receiver uses Receiving sticker pack to match up product #, correct case quantity, and pallet tie and high (number of cases per row ("tie"), and number of rows per pallet ("high")

Receiving

14. The receiver scans the sticker with the Triceps wand

15. Then enters additional load information into theTriceps Wand, including pack date (each item is pre-programmed with shelf life, usually between 20-90 days)

Receiving

16. The receiver puts a sticker on the bottom of each pallet ...

17. ...and scans the receiving sticker one last time. The item is now part of inventory and can be sold.

Receiving

18. The receiver cross checks the PO against the IT system information.

19. He/She writes the set Temp and final case count on the Purchase Order .

Receiving

20. The receiver puts the POs and Sticker packet together. The product is now ready to be placed in inventory.

"Surplus Racks" and "Picking Slots"

Notice the bays in this photo. The two bottom bays are "slots"-- that's where inventory ends up for picking. Product is picked in preparation for an order. All the bays above the "slots" are "surplus racks."

Generally, inventory first goes to a "surplus rack" and then the inventory system rotates surplus inventory into an available "picking slot" on a first-in first-out basis.

Lift-Driver/ Inventory Management

- Lift-drivers are the personnel responsible for taking inventory to the slots and surplus racks in the warehouse.

- Each lift-driver has a computer and headset.

- The software tells the lift-driver the location of the pallet on the floor and the location of the slot/surplus rack. Drivers are timed on their speed of delivery. At this warehouse, lift drivers are expected to have each pallet in the appropriate slot/rack within 90 seconds
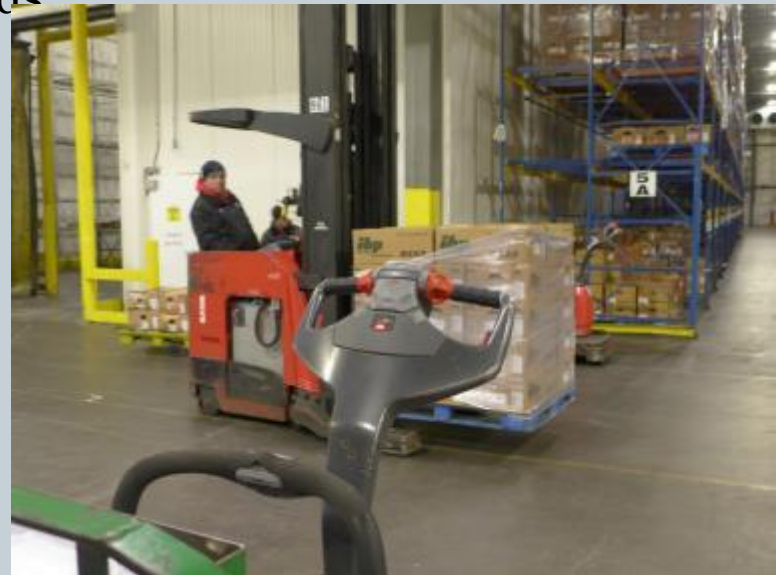
Inventory Management

- Notice how each surplus rack is "cubed out." The warehouse management system optimizes space, so that the warehouse can maintain high capacity utilization rates. In the words of one manager, "That space is valuable, and the name of the game is fill it up, and move it fast."

- Notice also the surplus racks have only one item per pallet.

Picking Process

- Once an order comes in, "pickers" are responsible for picking product from the slots.

- The warehouse management system sends pickers orders through a head set. The system gives pickers the location of the slot that contains the item to be picked. Pickers read off every unit they pick into the voice activated headset to ensure accuracy of the order.

- The picking system is highly efficient and standardized. It works based on slots housing a single item.

Checking an Outbound Load

- "Checkers" receive the order list from the warehouse management system software.

- Before orders can be loaded, checkers make sure that the correct number of items is on the correct outbound trailer.

Cross-Docking

Most product entering the warehouse goes through this process of receiving, quality control, placement in surplus racks and/or picking slots, picking for orders, checking the load, and then loading onto delivery trucks.

A second way that product is received and shipped is "cross-docking."

A cross-docked product is one that has been ordered directly by the retailer from the vendor. In other words, the warehouse distributor is not involved in the ordering process. The product usually does not go through warehouse QC and never enters the racks and slots. The product arrives, is checked in, and then is loaded directly from the dock onto an out-bound truck.

Cross-Docking

Because cross-docked product does not enter into the racks/slots system in the warehouse, pallets can be mixed, consisting of different items.

The costs of cross-docking occur at the store and vendor level, because these entities must communicate between themselves as to the content of the order.

Cross-docking can be difficult to incorporate into the operations of a large-scale warehouse distributor because the product does not fit into the warehouse system. At this warehouse distributor, produce cross-docking accounts for less than 2% of all product shipped.

An additional cost of cross-docking is the typically higher transportation cost, due to the fact that cross-docked pallets are not efficiently "cubed out."

The various sizes of the items on the pallet mean the pallets are difficult to stack.

Process Walkthrough for Meat Products at a Regional Distribution Center

For More Information on the NC Growing Together Project

ncgrowingtogether.org

USDA United States Department of Agriculture National Institute of Food and Agriculture

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