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Selecting the Right Hygienic Pallet for your Food Processing Plant

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Today's Objectives

- How reusable pallets support plant cleanliness
 - Cleanability
 - Color Coding
 - Load Segregation
 - Allergan Management
 - Use of a top cap in applications
- Proven 5-step approach to implementation
 - Analyze
 - Prove
 - Design
 - Implement
 - Evolve
- Implementing change and how we help

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*“The rule of thumb is that **anything** moving into the production area is moved on a plastic pallet. A plastic pallet can be cleaned and sanitized, and it eliminates the potential contamination from wood and metal (nails or staples) in a production area.”¹*

*--“Food Safety: Ode to the Pallet”, Richard Stier,
Food Engineering Magazine, October 1, 2011.*

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*“Not only are **plastic pallets safer for the food** and beverage industries, but they are also more eco-friendly and cost-effective compared to their wooden counterparts. By switching to a plastic pallet provider to **ensure your shipments arrive in excellent condition.**”*

--Plastic Pallets vs. Wood Pallets in the Food and Beverage Supply Chain, Freight Supply Chain, Adam Robinson, July 30, 2013

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*“Even minor, isolated problems require descriptive record keeping of corrective actions performed to reduce the likelihood of the problem ever occurring again. **Ignoring pallets, perhaps the single most ubiquitous (constantly encountered) item in the supply chain, would be like ignoring the grass on a golf course.**”*

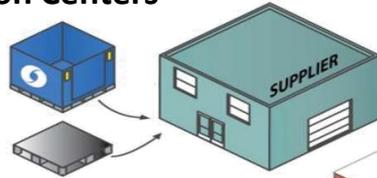
--Blogwatch: Pallets and Food Safety, Reusables for Global Applications, Hartson Poland of Nelson Company, Reusable Packaging News, June 24, 2016

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World-class food companies are seeking safe, hygienic and reliable solutions to store, handle and move product throughout their supply chain.

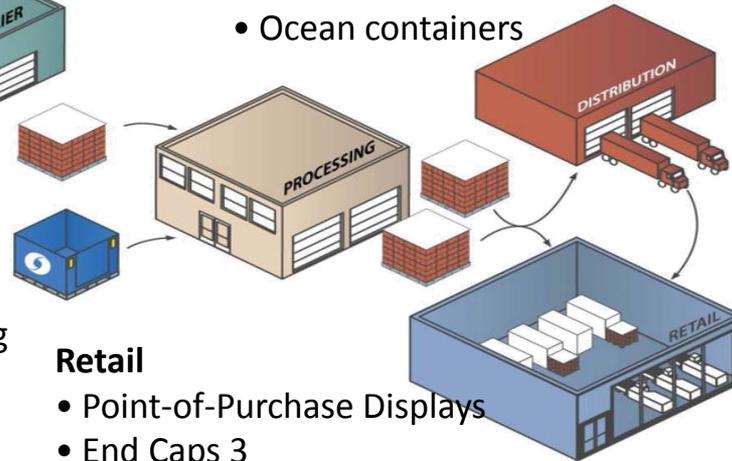
Warehouses/Distribution Centers

- Racked Storage
- Automated Systems



Transportation

- Standard 53' trailers
- Ocean containers



Processing

- Racked Storage
- Floor Storage
- Finished Goods Packaging

Retail

- Point-of-Purchase Displays
- End Caps 3

Food Plant Trends



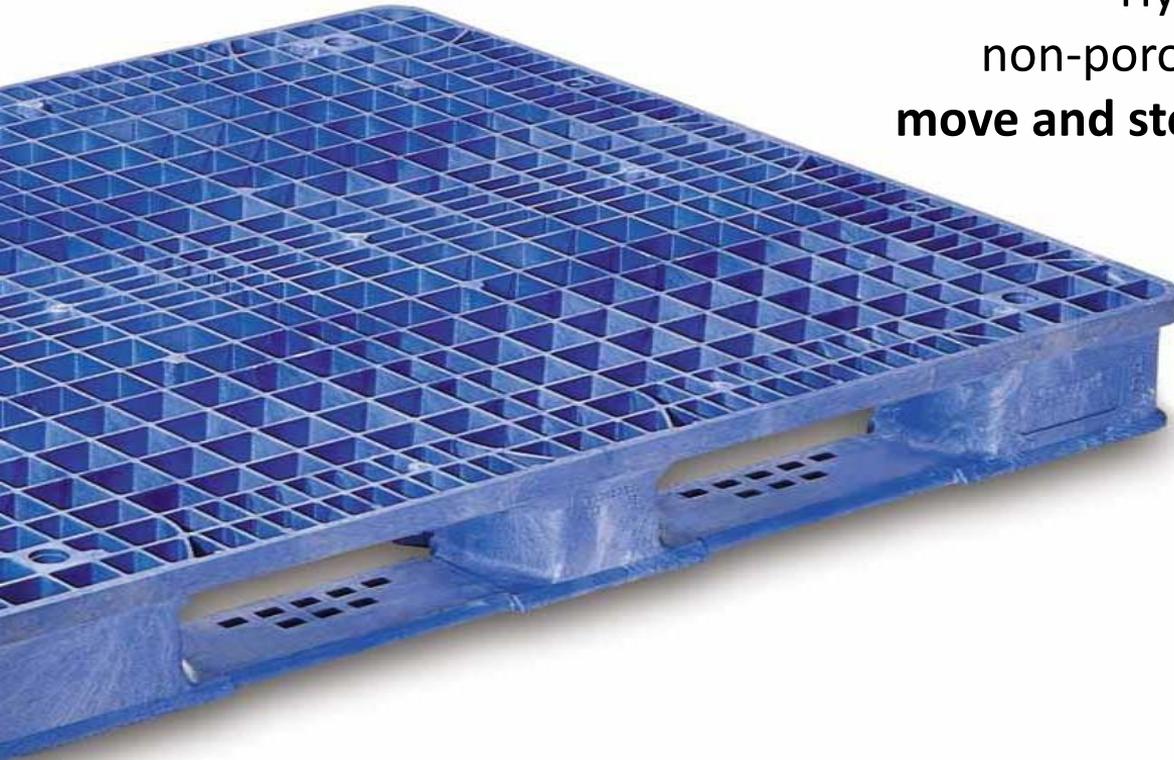
- **Automation** – Design the automation around the pallet versus designing the pallet around automation.
- **Robotics** – Plants with robotics better equipped at tracing products. More accurate counts.
- **New Plants** being built; older plants being retrofitted and renovated to support food safety compliance
- **New Technology:**
 - Separation equipment, including metal detection equipment and X-ray detection equipment
 - Pallet washers and rinsers
 - Allergen management processes
 - Tracking/identification/traceability
 - Antimicrobial materials
- **Pallet Materials:** 38% of pallet users are turning to plastic pallets. Reusability and durability are top factors in overall pallet decision making. (MMH)

Today, does your packaging...

- Keep your equipment clean?
- Promote a clean environment (no dust, chips, etc.)
- Absorb moisture?
- Dry fast?
- Allow for temperature ranges from cold storage to high-heat washing?
- Support Good Manufacturing Practices (GMPs)?
- Have nails, splinters or loose boards to damage cases?

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Hygienic Pallets: Defined



Hygienic pallets are easily sanitized, non-porous platforms **designed to cleanly move and store food product within a facility** and support sanitary conditions.



Important Design Characteristics

- One-piece design
- Minimized areas for contaminants to collect, with no hidden cavities or hollow areas, regardless of orientation.
- Open deck for flow-through for easy cleaning and fast drying.
- Contoured surfaces/corners that lowers risk of product damage from punctures or snags.
- No rust, nails, staples or loose boards. Non-rusting.
- Does not absorb moisture or odor



Important Material Considerations

- FDA-approved material, for direct food contact. FDA-approved material has 100% virgin content.
- Materials that do not readily absorb environmental contaminants like odors, bacteria, pesticides, etc.
- Materials that allow for high-temperature washing.
- Materials that can be X-ray and metal detectable.
- Custom colors to color code and segregate loads (allergen mgt, sorting lot #s, etc.)
- Labels/hot stamping to identify pallets for lot numbers.
- No dust or wood chips slow down equipment



Other reusable solutions to support cleanliness

- **Top Caps**
 - Creates a stackable unit load for pallets
 - Able to drain if left outside. Keeps dust and debris away from finished goods or WIP material
 - Nests with one piece hygienic pallets.
 - Works with a variety of plastic totes
- **Ventilated Totes**
 - Nestable and stackable totes
 - Ventilated for easy cleaning and fast drying
 - Available in FDA approved materials



Pallet Selection Best Practices

Since the pallet will have the most touches with your product and equipment on a regular basis, pallet selection is critical.

Step #1: Analyze

- Review your product's life cycle
- Identify product load characteristics: Type (boxes/cases, powder, liquid, etc.), Temperature requirements, Dimensions and weight, Value, Load distribution.
- Determine level of cleanliness needed

Step #2: Select/Design

- Determine required footprint: GMA, Euro-sized
- Determine pallet style: Rackable, nestable, stackable

Step #3: Justify

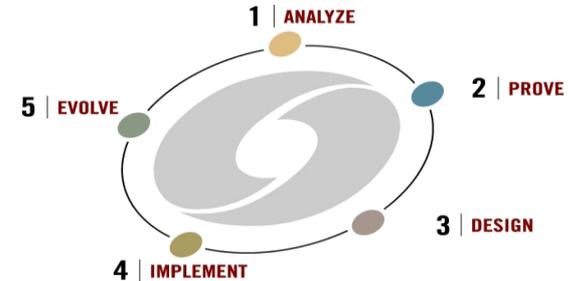
- Compare annual pallet costs
- Compare environmental impacts of pallet alternatives
- Compare hygienic characteristics of pallet alternatives

Step #4: Implement

- Get all stakeholders engaged (operations, material handling, maintenance, etc.)
- Conduct a small trial
- Train, train, train

Step #5: Evolve/Continuous Improvement

- Explore new materials
- Add facilities and expand pallet usage



Implementing Change into your Organization, with assistance from Jack Welch

What you need to do

- **Leading change** - Are senior leaders publicly supporting your effort?
 - **Creating a shared need** - Do your associates understand and agree with why the change is needed?
 - **Shape the vision** - Has the vision of what the future looks like been clearly communicated and understood?
 - **Mobilize Commitment** - Are the communications for the change effort well planned and executed? Is there support? How can you get it?
- **Leading change** - Are senior leaders publicly supporting your effort?
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Support can ease change

Seek partners with:

- Expertise in the food supply chain
- Implementation experience
- Design and material insight
- Proven examples of success
- Innovation

Looking to the Future

Update your pallet program as needed – It should be dynamic and respond to changes within the supply chain, including:

- New or upgraded automated equipment
- New or upgraded material handling equipment
- New plant or facility
- New material flow
- New products
- New labor practices
- New production processes
- New supply chain partners

Sources and Resources

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Welch Way- presented by Skillsoft

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Q&A