COMMON SHIPPING CONTAINERS

Common Materials Used

Wood, corrugated fiberboard, and plastic

Packaging Considerations

• Disposal

Choosing recyclable and/or biodegradable materials is not only good for the environment but a good financial decision. Many locales and markets have restrictions and significant charges for the disposal of packaging material.

• Humidity & Moisture

Packaging plays a major role in moisture control. In some instances, produce, such as potatoes and onions, require moisture to easily flow away. Other products, such as asparagus, require packaging to keep moisture in the package. Products shipped with ice in the container or top ice must be able to maintain their structural integrity. Hydrocooled products also require water-resistant packaging.

• Strength

Packaging must protect produce while in transit and arrive in top condition. Torn, collapsed, dented, or otherwise damaged containers indicate possible damage to the product inside and can affect sales.

• Weights

Freight continues to be an important cost in marketing produce. Dealers want to maximize the weight of saleable product, while minimizing the weight of packaging material. Heavy containers will work for lightweight products, which often fill a refrigerated trailer long before maximum weight is reached. Other commodities, however, with higher weight per unit foot are often packed in bags or corrugated cardboard, which are lighter and allow more "payload."

Ventilation

For most products, venting is essential to allow heat to escape and cold to be forced through the containers. Containers are often made so vents will match up to others nearby for free-flowing air. It is important vents not be so large or numerous that they weaken the container and cause collapse during storage or transport.

Function of Packaging

Packaging's function is to protect product from mechanical and environmental conditions throughout the marketing chain. Convenient handling is essential; the product should fit into the shape of the container, maximizing the space. The package also must be of a size, shape, and weight that can be easily handled. In many cases, the packaging provides a convenient surface for identifying pertinent facts about the product, such as brand, size, grade, weight, count, shipper, and, when applicable, origin. Consumer packaging also may include recipes, nutritional information, and product codes.

Wood

• Common Types:

Nailed, stitched, wire bound crates.

• Advantages:

Can be manufactured and repaired locally, resistant to weather conditions, good ventilation, high stacking strength, good protection from external impacts, unaffected by water and ice.

• Disadvantages:

Bacteria and fungal contamination, too hard or rough for delicate products, disposal, may be expensive, difficult to label, weight (increases tare weight).

• Examples of Product:

Sweet corn, apples, pears, watermelons, tomatoes, oranges, grapefruit, potatoes, squash, snap beans, grapes.

Corrugated Fiberboard

• Common Types:

Two-piece telescoping, one-piece regular slotted cartons.

• Advantages:

Cushions delicate products, low cost, lightweight, printable, store flat and assemble as needed, many types and grades, can be coated, recyclable.

• Disadvantages:

Moisture and high humidity weaken material (cartons may be waxed to improve moisture resistance, yet, wax creates disposal challenges), limited ventilation, easily damaged.

• Examples of Product:

Tomatoes, cucumbers, ginger.

Plastic

• Common Types:

Stacking, collapsible.

• Advantages:

Long life, recyclable, reusable, easily cleaned, good protection from external impacts, good stacking strengths and characteristics, weather resistant, water and moisture resistant, good ventilation.

• Disadvantages:

Expensive original investment, theft, hard surface may damage product, disposal (nonrecyclable types).

• Examples of Products:

Many products are packaged in plastic containers, especially rigid or "clamshell," packaging.