Title:
PACKAGING REQUIREMENTS FOR FRESH FRUITS AND VEGETABLES

Word Count:
4300

Summary:
Packaging fresh fruits and vegetables is one of the more important steps in the long and compl

Keywords:
Shorting ,grading, packing of fruits and vegetables, Reefer logistics, Reefer trucks , Temper

Article Body:
Introduction

Packaging fresh fruits and vegetables is one of the more important steps in the long and compl

Packing and packaging materials contribute a significant cost to the produce industry; therefo

The Function of Packaging or Why package Produce?

A significant percentage of produce buyer and consumer complaints may be traced to container f
PACKAGING POINTS

Recyclability/Biodegradability.

A growing number of U.S. markets and many export markets have waste disposal restrictions for

Variety.

The trend is toward greater use of bulk packages for processors and wholesale buyers and small

Sales Appeal.High quality graphics are increasingly being used to boost sales appeal. Multi-co
Shelf Life.

Modern produce packaging can be custom engineered for each commodity to extend shelf life and

Containment

The container must enclose the produce in convenient units for handling and distribution. The
packages of produce commonly handled by hand are usually limited to 50 pounds. Bulk packages m

Protection

The package must protect the produce from mechanical damage and poor environmental conditions

Because almost all produce packages are palletized, produce containers should have sufficient

Produce destined for export markets requires that containers to be extra sturdy. Air-freighted

Damage resulting from poor environmental control during handling and transit is one of the lea

Produce containers should be produce friendly - helping to maintain an optimum environment for

Identification

The package must identify and provide useful information about the produce. It is customary (a

Universal Product Codes (UPC or bar codes) may be included as part of the labeling. The UPCs u

Types of Packaging Materials

Wood

Pallets literally form the base on which most fresh produce is delivered to the consumer. Pall

Over the years, the 40-inch wide, by 48-inch long pallet has evolved as the unofficial standar

In the early 1950s, an alternative to the pallet was introduced. It is a pallet-size sheet (sl

Slipsheets are considerably less expensive than pallets to buy, store, and maintain; they may

Depending on the size of produce package, a single pallet may carry from 20 to over 100 indivi

Plastic stretch film is also widely used to secure produce packages. A good film must stretch,

A very low-cost and almost fully automated method of pallet stabilization is the application o

As the packages are stacked, the glue secures all cartons together. This glue has a low tensil

Pallet Bins. Substantial wooden pallet bins of milled lumber or.plywood are primarily used to

Most pallet bins are locally made; therefore it is very important that they be consistent from

The average life of a hardwood pallet bin that is stored outside is approximately five years.

Uniform voluntary standards for wood pallets and other wood containers are administered by the

Wire-Bound Crates. Although alternatives are available, wooden wire-bound crates are used exte

Wire-bound crates come in many different sizes from half- bushel to pallet-bin size and have a

Wooden Crates and Lugs. Wooden crates, once extensively used for apples, stone fruit, and pota

Wooden Baskets and Hampers. Wire-reinforced wood veneer baskets and hampers of different sizes

Corrugated Fiberboard

Corrugated fiberboard (often mistakenly called cardboard or pasteboard) is manufactured in mar

Most corrugated fiberboard is made from three or more layers of paperboard manufactured by the

Most fiberboard contains some recycled fibers. Minimum amounts of recycled materials may be sp

Double-faced corrugated fiberboard is the predominant form used for produce containers. It is

Both cold temperatures and high humidities reduce the strength of fiberboard containers. Unles

Waxed fiberboard cartons (the wax is about 20 percent of fiber weight) are used for many produ

In many applications for corrugated fiberboard containers, the stacking strength of the contai

Therefore, one of the primarily desired characteristics of corrugated fiberboard containers is

Interlocking the packages (cross stacking) is universally practiced to stabilize pallets. Cros

There are numerous styles of corrugated fiberboard containers. The two most used in the produc

The Bliss box was developed to be used when maximum stacking strength is required. The bottoms

Almost all corrugated fiberboard containers are shipped to the packer flat and assembled at th

In recent years, large double-wall or even triple- wall corrugated fiberboard containers have

For many years, labels were printed on heavy paper and glued or stapled to the produce package

Post Printed. When the liner is printed after the corrugated fiberboard has been formed, the p

Preprinted. High quality, full-color graphics may be obtained by preprinting the linerboard be

Preprinted cartons are usually reserved for the introduction of new products or new brands. Ma

Pulp Containers. Containers made from recycled paper pulp and a starch binder are mainly used

Paper and Mesh Bags. Consumer packs of potatoes and onions are about the only produce items no
However, bags of any type have several serious disadvantages. Large bags do not palletize well

Plastic Bags. Plastic bags (polyethylene film) are the predominant material for fruit and vege

In addition to engineered plastic films, various patches and valves have been developed that a

Shrink Wrap. One of the newest trends in produce packaging is the shrink wrapping of individua

Rigid Plastic Packages. packages with a top and bottom that are heat formed from one or two pi

As environmental pressures continue to grow, the disposal and recyclability of packaging mater

Common polyethylene may take from 200 to 400 years to breakdown in a landfill. The addition of

The move to biodegradable or recyclable plastic packaging materials may be driven by cost in t

Standardization of Packaging

Produce package standardization is interpreted differently by different groups. The wide varie
packers want to limit the variety of packages they must carry in stock, yet they have driven t

Shippers and trucking companies want to standardize sizes so the packages may be better pallet

Produce buyers are not a homogeneous group. Buyers for grocery chains have different needs tha

Selecting the right container for fresh produce is seldom a matter of personal choice for the