

# ***Corrugated: Recovered, Recycled....Wax Free***

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# Presentation Content

- Renewable Resources
  - Facts on U.S. Forestry and Packaging
- Corrugated Recycling
  - Facts on recovery and recycling
- Wax-Free Solutions
  - Combining product design with technology to reduce environmental impact



# Facts About U.S. Forestry and Packaging



# U.S. Forestry and Packaging

## Forest Stewardship

- About 50% of U.S. forestland is privately owned
- More than 1.7 million trees are planted every day
- The amount of standing timber in the U.S. has increased 39% since 1952, by 10 million acres since 1990 (USFS, Forest Resources of the United States, 2002. (Smith et.al.) U.S. Census).
- Certifications



# U.S. Forestry and Packaging

## Sustainable Forestry Initiative

- The SFI program integrates the perpetual growing and harvesting of trees with the protection of wildlife, plants, soil, water, and air quality.
- Covers the growing, harvesting and purchasing of fiber
- 143 million acres in North America in program
- 93% of all corrugated boxes are supplied by SFI participants



[www.SFIProgram.org](http://www.SFIProgram.org)



# U.S. Forestry and Packaging

## Forest Stewardship Council (FSC)



- International stakeholder-owned organization
- Promotes responsible stewardship of the world's forests
- Sets international standards for responsible forest management
- Accredits independent third-party organizations to certify forest managers and forest product producers to FSC standards
- Trademark provides international recognition to organizations who support responsible forest management



# U.S. Forestry and Packaging

## More Renewability News – By-Products

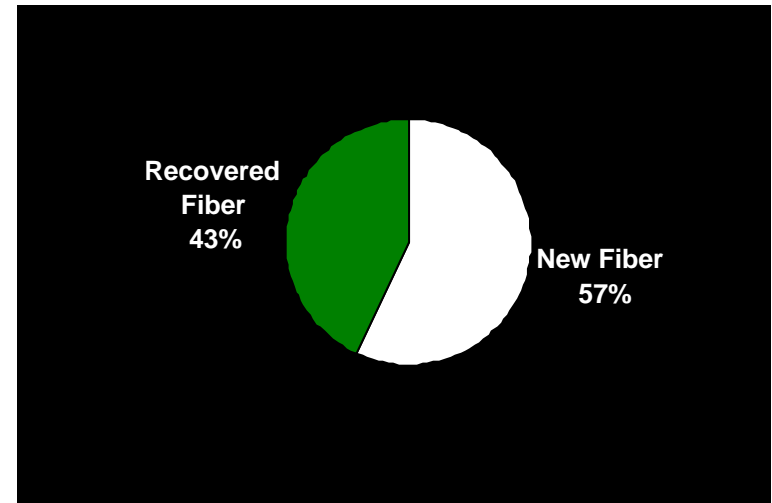
- Much of our fiber comes from chips that are by-products
- 60% of the energy to make “virgin” containerboard comes from renewable biofuels
- Total pulp and paper industry renewable energy usage equivalent to 211 million barrels of oil/year (AF&PA 2003)



# U.S. Forestry and Packaging

The average ratio of fiber type in containerboard used to make a corrugated box is

- 57% newly harvested
- 43% recovered fiber



Focus on source reduction:

- Shipper/Display
- Customized, lightweight, efficient
- 19% reduction / DIP unit - 1994 – 2005 (FBA)



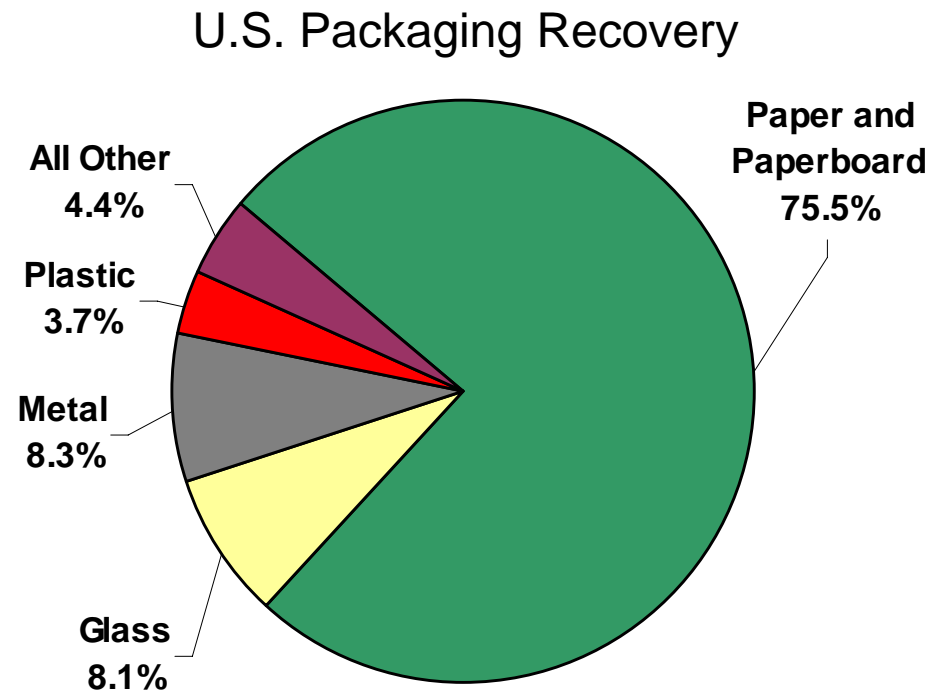


# Facts About Corrugated Recycling



# Facts About Packaging Recovery

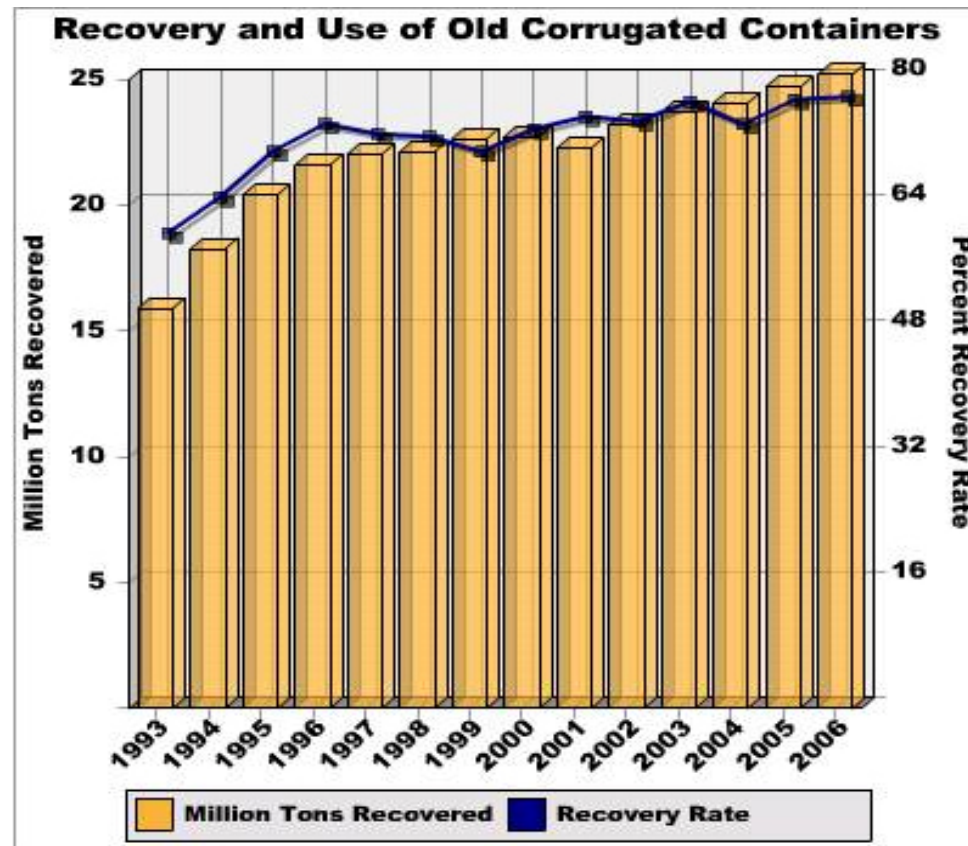
Paper based packaging is effectively recovered and utilized – far more than any other packaging material



Source: Franklin Associates Ltd.

# Facts About Corrugated Recovery

Recovery of Old Corrugated Containers (OCC) in 2006 rose 2% to 25.2 million tons taking the OCC recovery rate to 76.4%

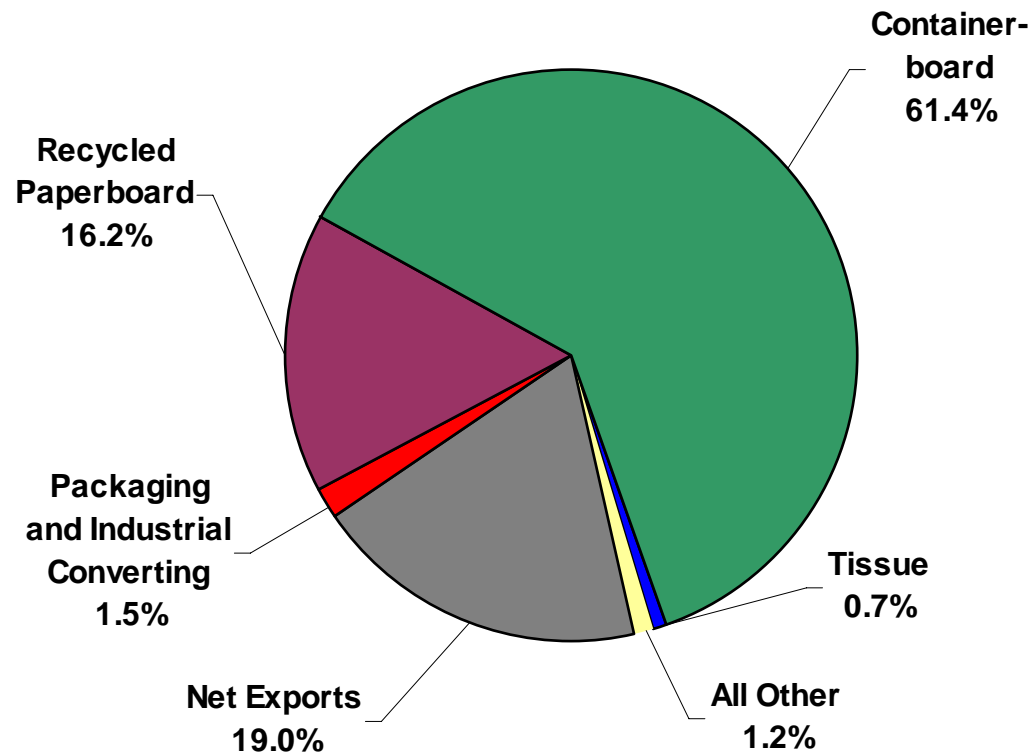


Source: Paper Industry Association Council

# Facts About Corrugated Recovery

Recovered corrugated fiber in the U.S. is effectively used in other paper and packaging products

## Where Old Corrugated Containers Go...



Source: AF&PA

# Closing the Gap



# Improving OCC Recovery

## Increasing Recovery

- Consumer education
- Source identification
- Eliminating non-recyclable product treatments



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paper, the everyday wonder | paper & the environment | recycling | issues | news | tools for teachers | members only

Recycling: It Starts With You

- in the work place  
Learn more...
- at school  
Learn more...
- in your home & community  
Learn more...

86 percent (254 million) of Americans have access to curbside or drop-off paper recycling programs

Join our email list for periodic updates and information.

In 2006, a record 53.4 percent of the paper consumed in the U.S. (53.5 million tons) was recovered for recycling. Paper recovery now averages 360 pounds for each man, woman, and child in the United States.

This impressive accomplishment was made possible by the efforts of AF&PA member companies and the millions of Americans who recycle at home, work, and school every day.

- 2007 AF&PA Recycling Award Winners
- 2007 AF&PA Recycling Award Video
- AF&PA Podcast Interviews
- Frequently Asked Questions About Paper Recycling

make recycling a part of your daily routine



# Improving OCC Recovery

## Goal:

To retrieve and recycle every corrugated container that can be recycled instead of it being put into landfills.

## Industry Survey Showed

- 87% of wax used for perishable food products
- Many products with recyclability claims
- Lack of definitions inhibits efforts



# Improving OCC Recovery

## Two methods to reduce wax use

- Shifts in cooling/transportation methods
- Corrugated manufacturers offer recyclable wax alternative treatments



## AF&PA/FBA - Repulpability and Recyclability Test Protocol

- Team of stakeholders
- Worked with qualified paper testing lab
- Certified through Fibre Box Association
- Labeled to communicate recyclability





# Improving OCC Recovery

## Action Steps:

1. Develop recyclable, wax alternative technologies
2. Consistently mark all corrugated that can be recycled in the normal OCC waste stream
3. Educate Retailers to retrieve all recyclable corrugated



# Improving OCC Recovery

## Wax Alternative Summary

- Environmental Win = Increased Recyclability
- Economical Win = \$200/ton swing from retailer disposal cost to revenue
- Social Win = Reduced landfill space



# Wax Free Packaging Solutions



# Wax Free Solutions

## FBA STATEMENT

While we appreciate and want to support your implementation of economically and environmentally sustainable wax alternative packaging, the FBA cannot make recommendations that would serve to determine potential winners and losers in the marketplace. However, each of the current suppliers of waxed containers either are actively marketing, or have access to, wax alternatives.



# Wax Free Solutions



## Deli Chicken

- 40-50 lbs of prepared chicken in bags, packed with ice in wax coated boxes with wax medium
- **Solutions**
  - Recyclable wax alternative boxes offered by multiple companies
  - Major poultry producers



# Wax Free Solutions



## Fresh and Frozen Fish

- Fresh fish packed in 10-80lb. boxes, iced, strapped and air shipped in wax coated packages with wax medium or foam

### ➤ Solutions

- Specialty coated boxes and high-performance medium
- Replacing wax for several years in NW
- Other potential applications include fresh/frozen catfish, trout, shrimp



# Wax Free Solutions



## High Humidity Applications

- Fresh produce and red meat packed and shipped in high humidity conditions using wax impregnated boxes



- **Solutions**

- Wax free mediums using coatings or pulp technologies
- Requires no changes in produce cooling processes
- Can be used on almost all designs



# Wax Free Solutions



## Ice and Hydro Cooled Produce

- Fresh produce packed, cooled with water and/or ice and packed in wax saturated boxes

### ➤ Solutions

- Corrugated encapsulated in plastic film
- Complete protection from water/ice
- Requires no changes in produce cooling processes
- Can be used on almost all designs





# Wax Free Solutions

What can you do to help?



- Understand the economic benefits of increased recovery
- **Ask your suppliers for wax-free packaging solutions**
- Educate team members on recycling logos



**QUESTIONS?**

