Paper Recycling: A Record of Success, Opportunities for More

Northeast Recycling Council

December 2, 2020
About AF&PA

• Advances a sustainable pulp, paper, packaging and wood products manufacturing industry
• Fact-based public policy and marketplace advocacy
• Represents 84% of the U.S. pulp, paper, paper-based packaging and tissue capacity
The Paper Industry in the U.S.

- About 950,000 employees
- 335 mills and over 4000 converting facilities
- $30 billion in annual payroll
- $182 billion in products
AF&PA’s 2020 Sustainability Goals

1. Paper Recovery  ➔  Exceed 70% recovery for recycling
2. Energy Efficiency  ➔  Increase purchased energy efficiency by at least 10%
3. GHG Emissions  ➔  Reduce intensity by at least 15%
4. Forestry  ➔  Increase certified fiber procurement
5. Safety  ➔  Reduce incidence rate by 25%
6. Water  ➔  Reduce use in mills by 12%
Recovered Fiber Utilization in Production 2010-2019

Utilization Rate at U.S. Mills

Source: AF&PA Statistics
2019 U.S. Recovered Paper Consumption By End Use

Grade of Recovered Paper

End Use

Corrugated

Paperboard

Mixed

Packaging & Converting Papers

Newspapers

Construction Grades

Pulp Substitutes

Tissue

High Grade Deinking

Newsprint

Printing and Writing

Source: AF&PA Statistics
2019 Paper & OCC Recycling Rates

Key Drivers:
- U.S. mill consumption -2.5%
  - U.S. mill consumption +1.0% (2017-19)
- U.S. exports -13.6%
  - U.S. exports to China -30.2%

<table>
<thead>
<tr>
<th></th>
<th>Total Paper</th>
<th>OCC</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018 Recycling Rate</td>
<td>68.1%</td>
<td>96.4%</td>
</tr>
<tr>
<td>2019 Recycling Rate</td>
<td>66.2%</td>
<td>92.0%</td>
</tr>
<tr>
<td>3-Year Average Rate</td>
<td></td>
<td>92.3%</td>
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Impact of COVID-19

- Shifts in production/recovered paper consumption
  - Decline in production of printing-writing papers, commercial tissue, bleached board
  - Decline in consumption of high grade deinking
- Sharp increase in e-commerce
- Global economic contraction
YTD 2020

• U.S. recovered fiber mill consumption +2.5%
  • Mixed +3.3%
  • OCC +4.1%
• U.S. containerboard production +4.3%
  • Recycled +11.7%
### New Mill Capacity (2020-2022)

- Will consume OCC (or OCC & Mixed Paper)

<table>
<thead>
<tr>
<th>Company</th>
<th>Location</th>
<th>Type</th>
<th>Capacity</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCA</td>
<td>Wallula, WA</td>
<td>Linerboard</td>
<td>350,000 TPY</td>
<td>Q4 2020</td>
</tr>
<tr>
<td>Port Townsend</td>
<td>Port Townsend, WA</td>
<td>Containerboard</td>
<td>128,000 TPY</td>
<td>2020</td>
</tr>
<tr>
<td>Green Bay Packaging</td>
<td>Green Bay, WI</td>
<td>Containerboard</td>
<td>685,000 TPY</td>
<td>Q2 2021</td>
</tr>
<tr>
<td>Total Fiber Recovery</td>
<td>Chesapeake, VA</td>
<td>Market Pulp</td>
<td>250,000 TPY</td>
<td>2021</td>
</tr>
<tr>
<td>Empire Recycled Fiber</td>
<td>Fairless Hills, PA</td>
<td>Market Pulp</td>
<td>500,000 TPY</td>
<td>2022</td>
</tr>
<tr>
<td>Crossroads Paper</td>
<td>Utah</td>
<td>Containerboard</td>
<td>342,000 TPY</td>
<td>Q1 2022</td>
</tr>
<tr>
<td>Domtar</td>
<td>Kingsport, TN</td>
<td>Containerboard</td>
<td>600,000 TPY</td>
<td>Q4 2022</td>
</tr>
<tr>
<td>Cascades</td>
<td>Ashland, VA</td>
<td>Containerboard</td>
<td>465,000 TPY</td>
<td>Q4 2022</td>
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</tbody>
</table>
Update on AF&PA Recovery Efforts

• Design Guidance for Recyclability for Paper-based Packaging
• Recovery of Targeted Materials
  • Pizza Box Recycling
• Educational Outreach
Design Guidance for Recyclability for Paper-based Packaging

• Develop technical guidance for designing and manufacturing packaging to meet customers’ needs in terms of recyclability.
  • Categorize what is easily recycled, less easily recycled and not recyclable
  • Inform individuals and groups that specify and design packaging and make determinations about the recyclability of packaging

• Status
  • Data collection complete
  • Follow-up interviews with survey respondents

• Timeline
  • Completion Q4 2020 – Q1 2021
WestRock study (2020) concludes there is no significant technical reason to prohibit post-consumer pizza boxes from the recycle stream.

AF&PA agrees with the methodology WestRock used for testing the impact of grease and cheese on recycling post-consumer pizza boxes in paper manufacturing and agrees that the results of the study support the conclusion that there is no significant reason to prohibit post-consumer pizza boxes from the recycling stream.
Recycling Communications

AF&PA and our industry partners, @FibreBoxAsn, @FindaBoxMaker and @TAPPI_TWEETS, aim to set the record straight about pizza boxes. They are recyclable. Grease and cheese are not an issue. Read more: ow.ly/Wkz15OwU0Z

UberFacts @UberFacts · Aug 5
Pizza boxes typically can’t be recycled because the grease from the pizza contaminates the cardboard.

AF&PA @ForestandPaper
Replied to @UberFacts

Pizza boxes are recyclable – grease & cheese are not a problem. Paper mills want boxes back to recycle. We encourage communities to update their residential recycling programs guidelines to explicitly accept pizza boxes that are free of food. afandpa.org/media/news/202

AF&PA @ForestandPaper
Replied to @Vangelina and @WestRock

Yes, it’s worth it. According to @WestRock’s study, pizza boxes equate to about 600,000 tons of corrugated that could be collected and they’re already being recycled at paper mills. Consumer education will help and making recycling better overall.

AF&PA @ForestandPaper
Replied to @RecyclingToday

“This guidance from AF&PA should give municipalities, recycling centers and households the information they need to confidently recycle pizza boxes.” - @RecyclingToday

American Forest & Paper Association
Paper Recycling Educational Outreach

When recycling paper products, remember these steps:
Keep it dry.
Keep it clean.
Put it in the bin.

Recycling Boxes is Easy
All you need to do is

1. Empty
2. Collapse
3. Flatten
4. Recycle

Dry Food Box
Dry food boxes like your cereal or pasta boxes can be recycled. Remove all food and plastic bags.

Magazine
Remove plastic wrapping, then place magazines and catalogs in the recycling bin.
Minimum Recycled Content Mandates

Recycled Content Mandates Create Negative Economic and Environmental Consequences

• Minimum recycled content policies may be appropriate or effective in products where the prevailing recovery rate is low, or where markets for that recovered material are in their infancy.

• In mature, complex, robust and dynamic markets such as currently exist for recovered paper, such policies are likely to result in negative economic and environmental consequences than intended:
  • Forcing recovered fiber into uneconomic end uses, creating inefficiencies and potential increases in environmental impacts
  • Increased virgin fiber use in some products that currently use recovered fiber
  • Less paper recovery as a result of market disruption