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TAPPI Journal
Editorial Board Member

The changing face of the coated paper industry

Editor's Note: TAPPI would like to thank Steven P. Ottone, Randy Branston, and Jim Niemiec of the TAPPI Journal Editorial Board, as well as Guest Editor Gregory Welsch of Trinseo, for selecting these papers from PaperCon 2017 and overseeing their peer review for this special Coating issue.

– Monica Shaw, Editorial Director

As a key contributor to the printing and writing (P&W) papers industry, *TAPPI Journal* has a long history of publishing groundbreaking research, as with the information presented in this special coating issue. Keeping pace with this research is vital to the face of our industry, which is evolving with changes in the way a new generation of people consumes information, goods, and services. Some of the challenges include:

- *The steady drumbeat of decay in the demand for P&W papers in the face of more and more consumption of electronic information:* Printing and writing papers consumption continues to decline on a year over year basis. The 2016 drop in North America demand was 3.9% across all P&W papers, with a faster-than-expected 5.9% loss in 2017 [1].
- *The continuing transition of how goods are purchased from brick-and-mortar to online:* This transition produces ever-increasing pressures for innovative shipping solutions. Key among these pressures is in the luxury packaging arena, which is focused on creating a “wow” factor for package recipients [2].
- *The effects of changing lifestyles and demographics on how food is purchased and consumed [3-5]:* Some of the important changes are the continually increasing number of meals consumed outside the home; growth in consumption of carryout over in-restaurant; and high growth predictions for delivered foods beyond pizza.

- *Sustainability of the food value chain is an ever more important factor [6-9]. This includes:*

- Public perception of the key points in the life cycle of packaged foods: 1) in the field; 2) in the packaging; and 3) at the end of life.
- The facets of packaging sustainability: 1) raw materials derived from sustainable sources; 2) “right-sized” for each application; 3) reducing food waste by protecting against damage and spoilage; and 4) recoverable, non-landfill end of life.
- Non-landfill disposal options will follow collection and processing infrastructure development. Recycling will be an immediate solution to bolster while composting infrastructure develops on the horizon.
- Sustainability and cost top a list of 2022 projected consumer food packaging concerns (% citing each): sustainability (48), cost (41), food safety and security (31), and packaging performance (28).

Looking to the future

Moving forward, the growth for our industry looks to be in the specialty and packaging arenas. Key growth areas are projected to be stiff and flexible barrier food packaging, label, release liner, and décor papers [10].

The face of folding carton packaging is changing as more and more of it migrates from recycled boxboard to solid bleached sulfate (SBS) and coated unbleached kraft (CUK) paperboard [11]. Another change in the folding carton realm is the increasing use of microflute corrugated, a structure that allows high strength, high graphic quality, and lightweight packaging solutions.

As for the print technology of choice for many of these specialty applications, digital, particularly ink jet, appears to be the most prominent [12]. Water based flexography will also assume a bigger share of the package printing market.

Leading the industry forward

As paper coating scientists, it is our duty to lead our industry into this uncertain future with innovative coatings built on the understanding of chemistry, applications, process, and requirements. This special coating issue of *TAPPI Journal* is a step in that direction, as readers will have the opportunity to examine works on four coating topics with impacts on our industry.

In this issue, we look at concepts in modeling, coating structure effects on flexographic print quality, coating with nanocellulose, and the mechanisms of gaining performance with aqueous barrier coatings. It is our pleasure to be able to publish these fine works for your review. Read, absorb, understand, and most of all, look to the future! **TJ**

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