Recycled Fiber: Paying MORE for LESS

Recycled mills have been put in a no-win position as they strive to produce a clean, quality product using poorer quality raw material at a higher cost

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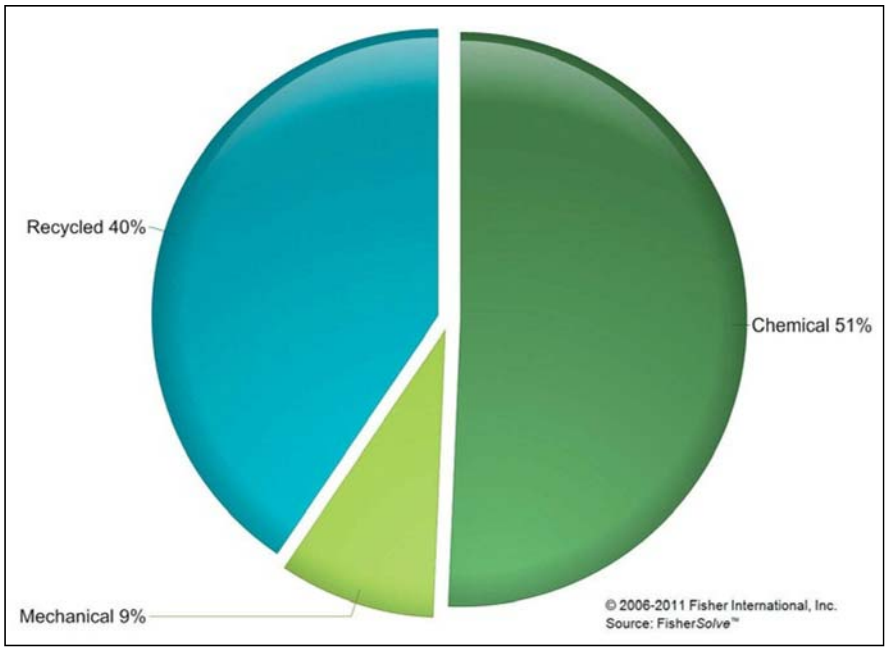


Recycled fiber accounts for 40% of all global fiber use in paper products.

Even in the face of a struggling global economy, recycled fiber prices have increased, sometimes dramatically. Take FutureMark, the Chicago-based paper manufacturer, for instance. In the last two years, the company has seen prices for old newsprint (ONP), coated groundwood sections (CGS), and old magazines (OMG) nearly triple. According to Steven C. Smith, VP of Operations at FutureMark, prices are now hovering 50% above the historical trend line.

For recycled mills like FutureMark, however, higher raw material costs are just the tip of the iceberg. At the same time that prices are rising, the quality of their recycled fiber shipments has been slipping. Producing high-quality end products from low-quality raw materials can be a costly challenge. Smith told me recently, "Recycled mills have been put in a no-win position as they receive poorer quality raw material at a higher cost. Then, on the other side, they are pressured to produce a clean, quality product at a competitive price." Lower quality fiber shipments force mills to incur additional expenses for handling, disposal, maintenance and repair. These extra costs result in lower profit margins.

While these extra costs are major concerns for U.S. mills, export markets are less likely to face the additional costs brought on by a spike in contaminant levels. Why? U.S. producers, collectors and brokers reserve the higher quality fiber shipments for export markets so they can avoid incurring the cost of higher claims for rejected overseas shipments. Even when contaminants sneak

through, they can be removed from the process more efficiently. In places like China, for instance, mills sport the latest technology including state-of-the-art cleaning systems. In addition, the lower cost of labor in Asian markets makes it cost-effective for them to re-sort shipments before they are processed.

In the U.S., however, a variety of circumstances have pushed the quality of recycled fiber down, even as prices have been rising; these include:

- Curbside recycling is at all-time high, specifically single-stream recycling that mixes all recyclables in a single container at the curb and relies on a post-collection sorting process.
- Eager to capitalize on higher prices, processors, collectors and brokers are accepting lower quality waste streams and passing them along to recycled mills.
- ISRI specifications are being ignored as processors blend grades together in order to produce higher volumes of higher priced fiber.
- In attempts to cut manufacturing costs, producers have begun to source additives globally (adhesives, for instance). Domestic manufacturing processes are sometimes unable to handle these new additives.
- Brokers, having lost customers through closures and consolidations, are attempting to preserve their own businesses by maintaining volumes even though their customer base is shrinking. Often, according to Smith, their only option is to obtain new customers by offering higher prices than the customer's current broker. This cost is then passed along to the recycled mill.
- As the cost of fiber has increased, mills have reduced inventories, sometimes to as little as four days. Sourcing just-in-time supply places recycled mills under increased pressure to be less selective when procuring fiber.

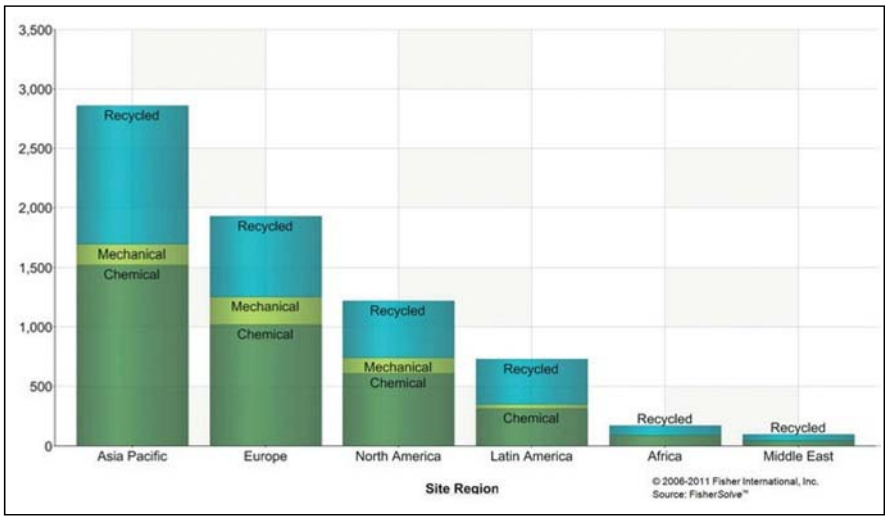
THE CONTAMINANT PROBLEM

The extent of the contaminant and prohibitive problem at domestic recycled mills varies with grade. According to Smith, FutureMark has seen the rate of contamination increase from 3% to 15%. The most affected grades include ONP, old corrugated containers (OCC), and sorted office paper (SOP).

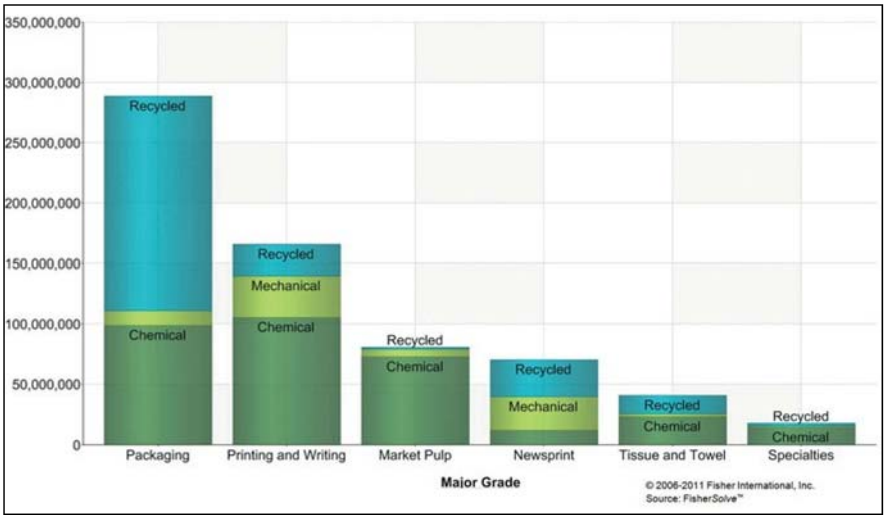
OCC. OCC sources from material recovery facilities (MRF) have more contamination, including glass, plastic bottles and containers and cans. The most serious of these contaminants is glass. When glass shards pass through the cleaning process and are carried to paper machines, they can lead to a lower quality end product and/or the need to replace costly machine clothing. OCC consumers are also purchasing a higher percentage of Asian board and board with coatings. Some of these coatings are not water soluble and either don't break down during processing or take longer to do so, driving manufacturing costs higher.

ONP. ONP consumers are seeing significant increases in contamination and out-throws. The quality of sorting has dropped significantly, leading to lower yields and higher waste removal costs. At FutureMark, for instance, the yield on ONP has dropped by as much as 15%. Smith describes their experience this way: "What is being purchased as #8 De-ink quality today is equal to Mixed Paper five years ago and far from ISRI specifications. Mills are being hit twice when trying to use poor quality streams. They buy this highly contaminated ONP just to reject out-throws they paid for and then pay again to have them hauled away."

SOP. One of the major issues for SOP consumers is blending. Because of the high price of some SOP grades, less expensive grades of pre-consumer waste are being blended into SOP. This is especially troubling since SOP is considered by certification organizations



Fiber use by machines by region.



Fiber used in major grades by production.

like the Forest Stewardship Council (FSC) and the Sustainable Forestry Initiative (SFI) as a post-consumer grade. The blending of post- and pre-consumer grades could lead to a loss of market share for a manufacturer's end products.

SOP consumers are also being challenged by the new adhesives being used. To cut costs, paper label makers have begun sourcing the adhesives globally. These labels are ubiquitous in shredded medical documents where labels detailing critical information are pasted on nearly every page of a patient file. However, the enzymes that U.S. mills have traditionally used to break down adhesives are not working on the new adhesives.

The handling cost associated with breaking shredded paper bales apart to remove contaminants or to determine if rejection is necessary, increases manufacturing costs. When these adhesives make it into the raw material stream, mills with closed water systems must add fresh water daily in order to rinse these adhesives out of the system, resulting in higher water dumping costs.

As the above examples show, higher fiber prices may be the tip of the iceberg for U.S. recycled mills. The costly effects of receiving lower quality fiber lurk just beneath the surface:

- The cost of lower yields as volume of contaminants increases.
- The handling costs of removing the contaminants from the waste stream.
- The cost of disposing of contaminants.
- The cost of wear and tear on machinery, including the cost of maintaining and repairing machines damaged by contaminants.
- The lost opportunity costs of the downtime associated with the repair of damaged machines.

All these factors point to a negative operating environment for U.S. recycled mills as long as the current situation continues. Having already suffered through many closures and consolidations, more recycled mills—as well as the producers, collectors and brokers they do business with—are likely to continue to bump against the iceberg as they continue to transition from domestic to global sourcing.

TAKING CONTROL

In the meantime, recycled mills can reduce the risk associated with higher priced, lower quality fiber by developing strong, long-term supplier relationships. Based on the premise that successful vendor relationships require solid data, clear expectations and open communication, a supplier performance program might look like this:

- Develop clear written standards, specific to the mill's requirements, including quality levels, bale integrity, overall bale appearance and stack safety.
- Visit vendor facilities regularly to communicate and reinforce the importance of the standards and to quality check the processing taking place at the vendor facility.
- Monitor vendor performance continuously using a performance scorecard on a load-by-load basis.
- Be consistent when enforcing the standards, even if it requires a higher number of rejections.

Barbara Wright Hudson, a 15-year industry veteran, leads Forest2Market's recycled fiber practice. She oversees sales and derivative product development for Market2Mill, a suite of services for the recycled and recovered fiber industry that include a monthly recycled fiber price report and a quarterly benchmark. Contact her at (704) 540-1440, ext. 35.