Season’s Greetings!

On behalf of the CPBIS management team and the entire body of CPBIS faculty, staff and students, I extend best wishes for this holiday season to all of our newsletter readers. We value your continued interest in the Center’s work as we strive to help meet the industry’s research, education, and outreach needs. During this joyous season, we hope that your travels are safe and your holidays relaxing.

With warm regards,
Pat McCarthy, Director

Expanded Mills OnLine Traces Industry Evolution

By Aselia Urmanbetova

We first launched Mills OnLine (MoL) on the CPBIS website in 2003. The first version of the data set was constructed using three main sources of information: (1) the 2000 Forest Products Laboratory (FPL) database (http://www.fpl.fs.fed.us/documents/fplrp/fplrp602.pdf), (2) the BLRBAC database on recovery boilers, and (3) the 2003 Lockwood-Post’s Directory (for verification). At the time, we also conducted Internet verification of mill and company information to resolve apparent conflicts. MoL 2003 contained more recent and accurate information than the 2003 Lockwood-Post’s, since any given year’s edition of Lockwood is not up-to-date with respect to mill closures and mergers that occurred in the interval since that edition was published.

Since 2003 we have continually updated Mills OnLine by reading ForestWeb (FW) daily news reports published by Industry Intelligence Inc. (http://www.industryintel.com), and consulting other trade publications and media to ensure data accuracy. The FW updates typically reflected the most recent changes in corporate ownership due to mergers and acquisitions, mill closures associated either with permanent divestures or lengthy market-induced downtimes, Greenfield projects, major capacity expansions and product mix changes. To control for those cases when capacity changes, closures or idlings are not reflected in FW news reports, we cross-checked Mills Online with the 2007 and 2011 Lockwood-Post's Directories.

Most recently, we have expanded the database to include historical records of all pulp and/or paper mills that operated at any time during the period 1970 – 2011. Historical plant records from the original FPL data were manually cleaned and verified with each of the Lockwood Post’s editions from 1979 to 2011. The result is a unique data set that contains records of nearly 800 stand-alone and integrated pulp and paper mills that are or have been operating in the last 40 years. Among the 800 mills, 350 are reported as currently operating, 7 mills are reported as idled or closed, and 426 are shown as delisted from the annual Lockwood directories. Geographic location and most recent product and capacity information for the 426 closed or dismantled mills provide a unique historic perspective on the evolution and restructuring of the industry.

The historical data include the state, county, and city for each site, as well as, zip code, latitude and longitude; the latest annual operating capacity (in thousands of short tons) by product category; availability of a pulping facility; and, in the case of subsidiaries, corporate ownership. County and state statistical information is available via web link from the Census Bureau. In addition, records for the
currently operating mills include their current address, telephone and fax numbers.

The enhanced database, MoL2011, will be made available for sale at **CPBIS Market Place** in early 2012. Given that the new database includes substantially more information than its predecessor, the buyer will have the option of purchasing either the whole dataset or just one or more subsets, e.g., only mill geographic information or contact details.

**AF&PA News**

The American Forest and Paper Association recently released statistical reports on printing and writing grades and recovered paper. Here are the highlights:

**Recovered Paper**
- Total U.S. industry consumption of recovered paper was 2.5 million tons, 6% lower than October of last year, but 1.5% higher than September 2011.
- Modest increases compared to last month were observed across three grades of recovered paper, led by newspaper consumption which went up 11%, followed by a 10% increase in High Grade Deinking consumption.
- Year-to-date consumption compared to the same period in 2010 has now decreased by 5%.
- Inventories remained essentially flat compared to last month and to October of last year, but are still at relatively high levels for 2011.
- U.S. exports of recovered paper dropped 5% in September compared to August, which is the highest drop since February.
- Year-to-date exports in 2011 continue to be 14% higher than last year by volume.
- Imports, despite being relatively inconsequential in U.S. recovered paper trade, are 30% higher year-over-year.

**Kraft Paper**
- Total Kraft paper shipments were 124.8 thousand tons, a decrease of 6.9% compared to October 2010.
- Total inventory was 81.6 thousand tons from last month.
- Total Unbleached Kraft shipments decreased compared to October 2010.
- Total Bleached Kraft shipments increased compared the same month last year for the eighth time in 2011.

**Containerboard**
- Containerboard production was flat, decreasing just 0.1% when compared to September 2011.
- The month over month average daily production, was down 3.3%.
- The operating rate for October 2011 was down slightly from October 2010 to 95.1% from 96.0%.
- Linerboard production was flat compared to last year.
- Medium production was down from October.

**Boxboard**
- Unbleached Kraft Folding production increased over the same month last year, and last month.
- Total Solid Bleached Boxboard & Liner production decreased compared to October 2010, and was lower than last month.
- The production of Recycled Folding decreased compared to October 2010, but increased when compared to last month.
- Inventory of Solid Bleached Kraft Paperboard grew over a year ago.

**Printing and Writing**
- Total printing-writing paper shipments decreased 4% in October compared to October 2010.
- All four major printing-writing grades posted decreases compared to last October. U.S. purchases (shipments + imports – exports) of printing-writing papers decreased 3% in October.
- Total printing-writing paper inventory levels decreased 5% compared to September 2011.
- September exports of uncoated free sheet (UFS) decreased year-over-year.
- Shipments of coated free sheet (CFS) decreased year-over-year for the eleventh consecutive month.
- Coated mechanical (CM) purchases increased year-over-year for the second time in 2011.
- Uncoated mechanical (UM) shipments decreased year-over-year for the seventh consecutive month following 15 consecutive months of year-over-year increases.
Recent Forestweb/Industry Intelligence Headlines

Forestweb and its sister company, Industry Intelligence, publish daily and weekly news reports tracking recent developments in and around the paper and forest products industries. Subscription information is at http://www.forestweb.com/Corporate/index.cfm

Below is a small sampling of recent headlines, together with brief synopses.

December 11
Temple-Inland stockholders approve merger with IP; completion of merger subject to regulatory approval, other customary closing conditions
Over 98 percent of the shares voted were in favor of adopting the merger agreement with IP.

Commodity dissolving pulp prices backing off as new capacity comes on, specialty side maintaining strength
Analyst says DP prices are $1,300-$1,500/tonne, off a high of $2,650/tonne in April. Specialty grade prices expected to be between $1,850/tonne and $1,900/tonne in 2015/2016.

December 4
Nova Scotia announces investment in Bowater Mersey mill in Brooklyn to help enhance facility's long-term sustainability, including C$25M loan for energy projects, purchase of 25,000 acres of company-owned land for C$23.7M
The loan will fund a refining project that will reduce electricity consumption and a turbine to produce additional renewable electricity. Proceeds from the land purchase to help enhance the long-term sustainability of the paper mill.
Support for the mill also includes a new agreement with the union, a tax break from the Municipality of Queens and contributions from the Port of Halifax and Nova Scotia Power.

Three-year break on power rate might not be enough to keep Bowater Mersey mill in Brooklyn, Nova Scotia, open past Jan. 1, as parent Resolute Forest Products still wants additional savings on labor, fiber, say analysts
Resolute Forest Products, which owns 51% of Bowater Mersey, has not determined if the new power rate meets its needs for keeping the mill opened past Jan. 1.

November 27
Verso Paper works with Maine schools on degree program aimed at luring graduates to papermaking; state's paper mills face labor challenge amid aging workforce, shortage of qualified recruits
Recent news of job losses at paper mills across Maine may suggest to some that employment in the state’s pulp and paper industry is shrinking, not growing, but the average age of a paper mill worker in Maine is in the 50s. So even as mills throughout Maine face increased global competition, they also are bracing for a tidal wave of empty positions as those workers begin to retire after decades on the job.

Global paper packaging market in 2011 valued at more than US$236B by London-based research firm Visiongain; eco-friendly nature, lucrative emerging markets bode well for further growth
A new Visiongain report notes that, despite the reverberations still being felt in the economic markets, paper packaging is enjoying a second wind driven by convenience, affordability and recyclability. Lucrative new markets in the rapidly emerging economies of China, India and Brazil present unprecedented business opportunities and growth.

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Statistics Corner: U.S. Fuel Ethanol Plant Production Capacity
Table 1 below shows the number and geographical distribution of fuel ethanol plants in the United States as of January 1, 2011.
<table>
<thead>
<tr>
<th>Region</th>
<th>No. of Plants</th>
<th>Capacity, Millions of gallons per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>East</td>
<td>5</td>
<td>426</td>
</tr>
<tr>
<td>Midwest</td>
<td>171</td>
<td>12,375</td>
</tr>
<tr>
<td>Gulf Coast</td>
<td>5</td>
<td>334</td>
</tr>
<tr>
<td>Rockies</td>
<td>5</td>
<td>190</td>
</tr>
<tr>
<td>West, Alaska, Hawaii</td>
<td>7</td>
<td>289</td>
</tr>
<tr>
<td><strong>U.S. Total</strong></td>
<td><strong>193</strong></td>
<td><strong>13,614</strong></td>
</tr>
</tbody>
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*Table 1. U.S. Fuel Ethanol Plants, January 1, 2011 (U.S. Energy Information Administration)*