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SNIPPETS
FOR THE PAPER INDUSTRY

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DO YOU KNOW

“Do You Know” is an annual feature of **Snippets**.

In spite of our 'information - laden existence' we are still curious to learn about interesting 'facts' pertaining to our working environment.

Here we present a vignette of such information about the “Pulp and Paper World” - *delving into the past; defining the present and speculating about the future.*

YESTERDAY

- Papermaking invented in China around 105 AD, was a closely guarded secret for 650 years till the Arabs learnt the art from Chinese prisoners of war.
- Corrugated or pleated paper was first introduced in England in 1856 and was used for lining the Englishmen's tall hats.
- Paper cups were invented in Europe in 1908 and were called 'health cups' as they replaced the repeat-use metal cups used with water fountains.
- In the 1850's there was a severe shortage of rags used in the US for papermaking. Import of Egyptian mummies was seriously considered. Mummies are generally swathed in approximately 14 Kgs of fine linen cloth - excellent for papermaking. It was estimated that enough mummies were available in Egypt to satisfy the American paper demand for the next 14 years!
- In 1978, Frederick Wilfrid Lancaster, an information scientist, envisioned a “Paperless Society” to be in place by first decade of the 21st century.
- Nokia of Finland is famed for having been a paper mill for 100 years before transforming into the world's largest mobile phone company.
- Greenpeace had denigrated the Paper Industry on following counts : *destroyer of forests; guzzler of energy and water; polluter of the environment.*

TODAY

PAPER DEMAND

- The predictions of a paperless office by 2011 has come to naught. Print volume has actually increased, as people have gone on to print emails, web pages, etc.

FORESTRY

- The Indian Paper Industry has pioneered farm forestry in India. Today it covers almost 700,000 hectares of land, satisfying the industry's need for fiber as well as providing livelihood to rural farmers.

THE RECORDS

- *Biggest* : International Paper continues to be the world's No. 1 pulp and paper maker.
- *Largest* : Hainen Jinhai PM-2 is said to be the largest paper machine in the world. Length : 600 m; Wire width : 11.8 m; Speed 1415 m / min.
- *Fastest (Paper)* : Zhanjiang Chenming, PM-1 set a speed record of 1710 m / min while producing 70 gsm woodfree paper.
- *Fastest (Tissue)* : Hayat Kimia, TM-2, Turkey has beaten all records in tissue production by running at 2210 m / min.
- *Country Record (Paper)* : China is the leading producer of P&B accounting for 25% of world production.
- *Country Record (Pulp)* : The US continues to be the largest producer of papermaking pulp as well as the largest consumer of paper per capita.

WATER AND ENERGY

- The past decade has seen water consumption of paper machines being reduced by 1 / 3 as a result of more efficient water circulation.
- The paper industry has considerably reduced its energy requirements. 55% of the energy used by the European paper industry is bio-energy.

TOMORROW

THE INDUSTRY

- The Pulp and Paper industry is being increasingly viewed as part of a bioeconomy in terms of resource management. Apart from bio-refineries, future focus will also be on products derived from bio-mass and other forest-industry by-products.
- Global Trends : China, Argentina and Brazil are the fastest growing countries in terms of paper production.

INDUSTRY NEWS

CSR : Indian Paper Mills, most of whom are located in backward areas have done much to improve the living conditions of their rural neighbourhood.
Some noteworthy initiatives : **Jai Nirman Yojna** of WCPM; **Sparsh** of JK Paper; **e-choupal** of ITC; **Pratham** of BILT.

SUSTAINABLE FORESTRY

- Already 92.2% of forests managed by European paper companies are certified by independent forest management schemes.

FIBER TRENDS

- Banana fibers, is being considered as a source of fibers for papermaking in some Latin American countries. 10% banana fiber mixed with 100% post consumer waste paper produces a lint free paper suitable for copiers and ink - jet printing.
- Coffee leaves are being increasingly used for making fancy papers and invitation cards; preferred for to its natural texture and hue.
- Elephant dung is being used in Thailand and India for making hand made paper. One elephant produces enough dung for making 115 sheets of handmade paper each day.

PULPING

- More and more pulping units in Canada and US are converting from 'paper pulp' production to 'dissolving pulps' which are needed for production of rayon and cellulose acetate.

WASTEPAPER RECOVERY

- A report from World Resources Institute (2010) informs that developing countries increased the volume of recovered paper by 365 percent between 1993 and 2006.

RECYCLING

- The United States Environmental Protection Agency has found that recycling causes 35% less water pollution and 74% less air pollution than making virgin paper.

WATER MANAGEMENT

- The paper industry is involved in the development of water stewardship and water footprinting and is an active partner in the development of a globally harmonised understanding of water.

PACKAGING TRENDS

- RFID enabled cardboard boxes can help to trace a packing box throughout the entire supply chain.

PAPERMAKING

- Foam forming technology will be a focus area in papermaking.

MARKET DEMAND



- A survey to assess future demand for paper indicates that consumers are willing to pay a premium for products viewed as being sustainable and environmentally friendly.

NOVEL MATERIAL

- Georgia Tech University has developed an 'advanced material' out of paper. A superamphiphobic - one that repels all fluids - has been created by modifying the surface structure and exposing the crystalline cellulose nanofibrils.

THE FUTURE

- The global demand for paper products is significant, evidenced by the more than 400 million tons produced annually. RISI believes that by 2021, the volume will increase to approx 580 million tons. Growth is expected in packaging grades fed by the burgeoning demand for "off the shelf" packaged food.

QUOTABLE QUOTE	<i>"Where there is joy there is creativity. Where there is no joy there is no creation".</i> - <i>The Upanishads.</i>	
SCRABBLE	What does Z P stand for? (Hint : Wet-end parameter) First correct answer will win a Parker Vector Roller Pen (Maximum two prizes for one person in a year). Email your answers to snippets@wirefabrik.com by 20 th July, 2013.	
WINNER JUNE'13	Mr. Tushar Udgata, Vice President, Gemini Graphics Pvt. Ltd., Security Paper Division, 44 & 45, Naubad Industrial Area, Bidar, Karnataka - 585403 Answer : D P S : DOUBLE PICK STITCH	
WINNER MAY'13	Mr. N. Panda, Jr. Mgr. (R&D), Emami Paper Mills Ltd., Village Balgopalpur, PO Rasulpur, Dist. Balasore, Orissa-756020 Answer : APPITA : Technical Association of the Australian and New Zealand Pulp and Paper Industry	
?QUIZ	Which two of the following are not paper defects ? a) blackening b) blisters c) whiskers d) cockle e) foxing f) snailing g) fading h) roping Email your answers to snippets@wirefabrik.com by 20 th July, 2013.	
WINNER JUNE'13	Mr. G. Mohan, Asst. Mgr. - Paper Machine, Danalakshmi Paper Mills Ltd., Vilampatti, Nilakotai Tk, Dindigul Dt-624219 Quiz : Check the right options a) All surfactants are soap / not soap. b) Coagulation occurs through polymer bridging / charge neutralization. c) Soft / hard water is required in flotation de-inking process. d) Foam is caused by entrained / dissolved air. Answer : a) not soap b) charge neutralization c) hard water d) entrained	
 Prizes	1. Best / first correct answer received will win one-year subscription to IPPTA Journal (Maximum one prize for one person in a year). 2. Best of the 12 monthly winners in a year, will win one-year subscription to Paper 360^o Magazine, USA.	
 Targeted Assault	Son to Father : Teacher says that "The pen is mightier than the sword", but what can be mightier than the 'gun'. Litigant Father : Well son, what I know now, is that a lawyer with his briefcase is more dangerous than a thousand men with guns.	
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