Exploring Innovations in Specialty Paper:

Alternative Pulp Sources, Non-traditional Markets & Achieving Sustainability

Presented by:

Jim Koronkiewicz - General Manager,
Dan Hietpas - Sales, Marketing & Product Innovation
Manager
Melissa DeMoulin - Marketing Specialist





Manufactured or subsequently converted for a special application

- What makes a Specialty Paper "special"?
- What makes paper a wise choice in a world of many substrate options?
- How can ideally-suited paper products meet the ever-changing needs

of our consumer marketplace?







Those are some really special PAPERS!

- Tailored products typically part of smaller manufacturing runs
- Unique properties created within the base paper
- Enhanced properties as a function of specific paper coatings
- Specialized features from off-machine converting processes
- Roll sizes and packaging to align with customers' specific requirements





"Innovation happens when people are free to think, experiment and speculate."

MATT RIDLEY

- □ Meeting today's paper and packaging challenges
- □ Anticipating tomorrow's challenges





Traditional sources of pulp are characterized as:

- > Virgin Fiber (Hardwood, Softwood)
- Recycled Fiber (Pre- and Post-Consumer Waste)

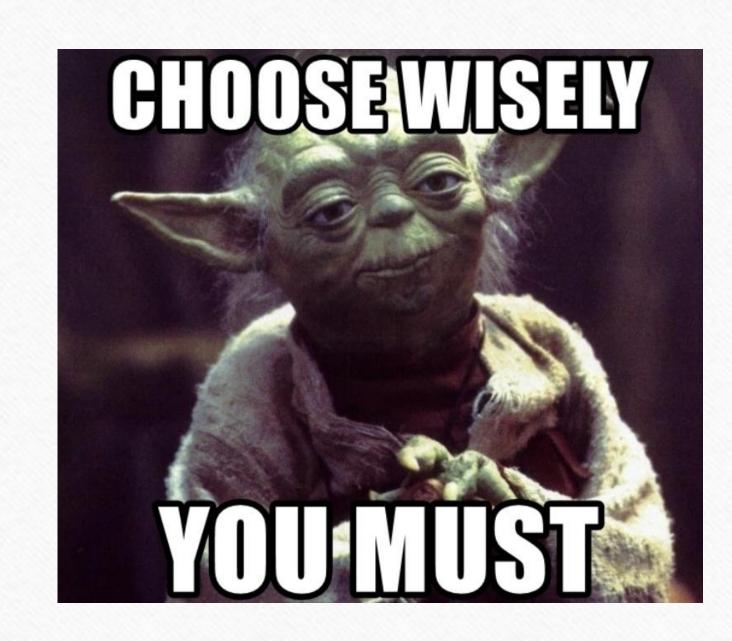






Papermakers engineer properties into a finished paper product by considering a variety of pulp fiber decisions/actions

- Blend of hardwood/softwood sources
- Degree of refining mechanical "work" applied to fibers
- Adjustments to sheet forming, wet pressing, drying and calendering
- Additives to enhance properties or aid in maximizing sheet manufacture

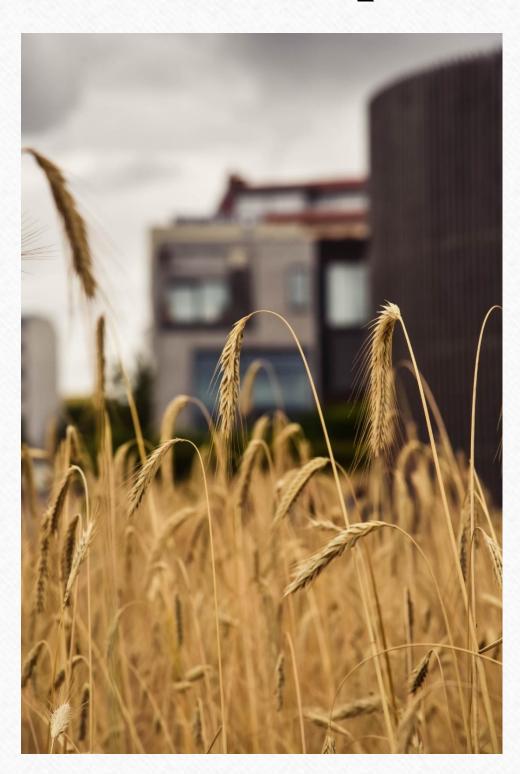




For new pulp sources, The possibilities are endless...



Sugarcane Bagasse



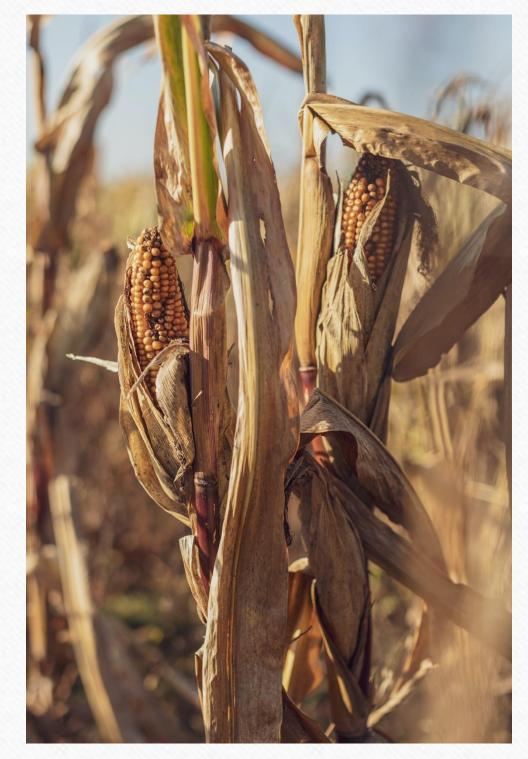
Wheat Straw



Tequila Agave







Corn Husk



Bamboo



Industrial Hemp



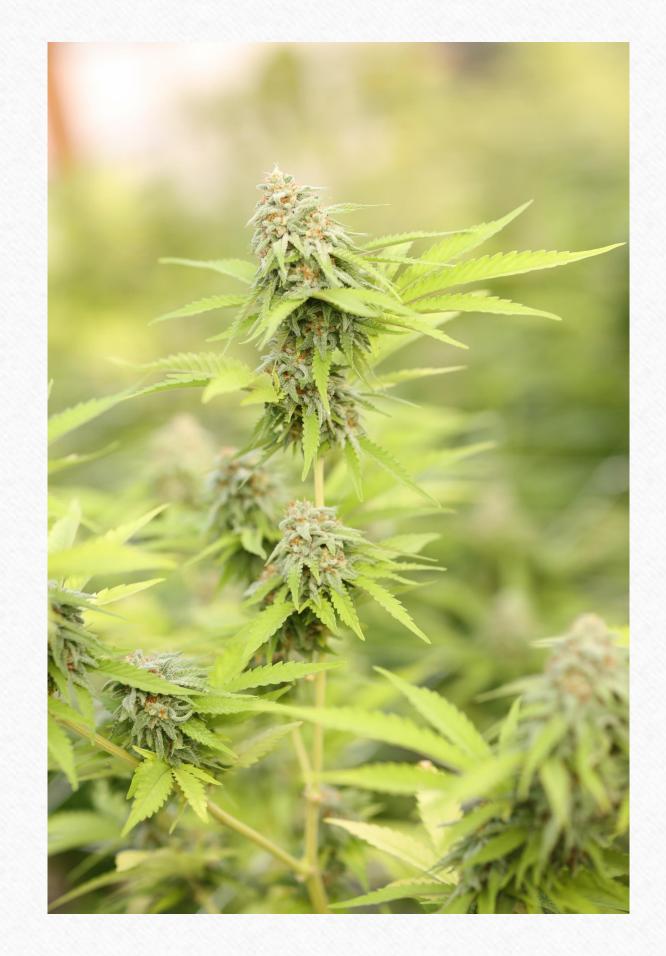


Food & Beverage Industry



Personal Care Industry

Non-Traditional Markets



Marijuana Industry





Economic, Environmental and Social Pillars

- Minimizing Waste
- Reducing Emissions
- Consuming Less Energy
- Providing Customers Attractive Product Alternatives









Products Suited for Customer's Sustainability Goals

- Replacing plastic with paper-based substrates
- Reducing total weight or volume of packaging
- Aligning products with recyclable and compostable collection streams





Future is Bright for Specialty Paper Industry

- Innovating
- Demonstrating Flexibility to meet Market Challenges
- Respectful of the Natural Resources that we share





Thank you for your time!

Jim Koronkiewicz jsk@bpmpaper.com

Dan Hietpas drh@bpmpaper.com

Melissa DeMoulin mmd@bpmpaper.com