

FISHER INTERNATIONAL



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IS CHEMI-THERMOMECHANICAL PULP THE NEW OLD THING?

If you were to interview any seasoned paper maker in the field, you would likely find many have the same mindset when it comes to producing paper: *A mix of fiber will contribute to better machine runnability and improved paper characteristics.*

However, this is not always the case since fiber availability, price and commercial terms interfere in the pulp mix choice.

From a fiber perspective, Chemi-Thermomechanical Pulp (CTMP) and alike are the ideal types of material pulp producers want to use. This is because the wood *versus* pulp yield is huge when compared with kraft pulp.

Looking at the marketplace in Figure 1, the global use of CTMP is almost zero even though the market would very well accept this type of fiber. Why is this? Because of its price.

CTMP is an energy intensive fiber. With increased regulations being placed on energy usage, there is a significant difference between the cost of CTMP versus other pulps (See Figure 2). Therefore, many feel CTMP is not worth the hefty bill.

However, after understanding the benefits that can come from using CTMP, a few integrated paper producers have announced new projects to expand their CTMP capacity, despite the high energy cost. For example, [SCA decide to increase CTMP production](#) from 90,000 to 300,000 tons at its new Ortvikén pulp mill site.

The company's decision to now produce CTMP is also due to the large surplus of energy these new kraft lines now possess thanks to new technologies and improved processes. With

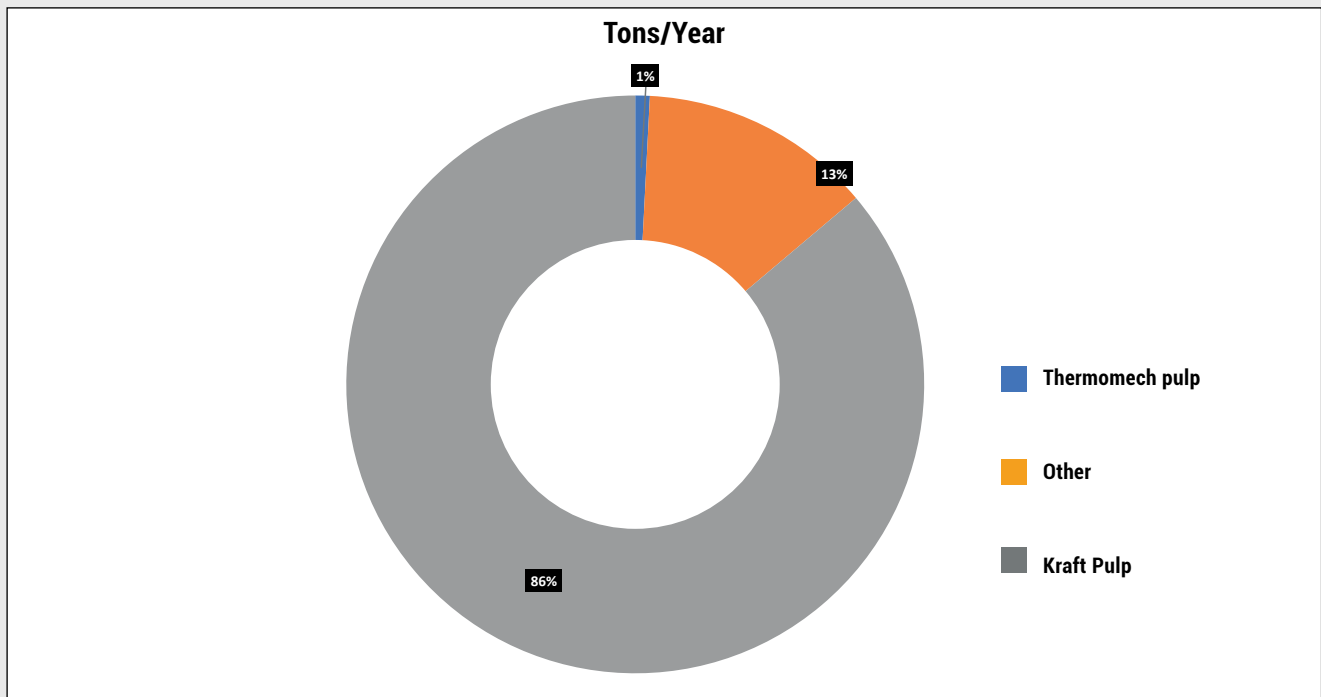


Figure 1. Use of Pulp in the Global Marketplace

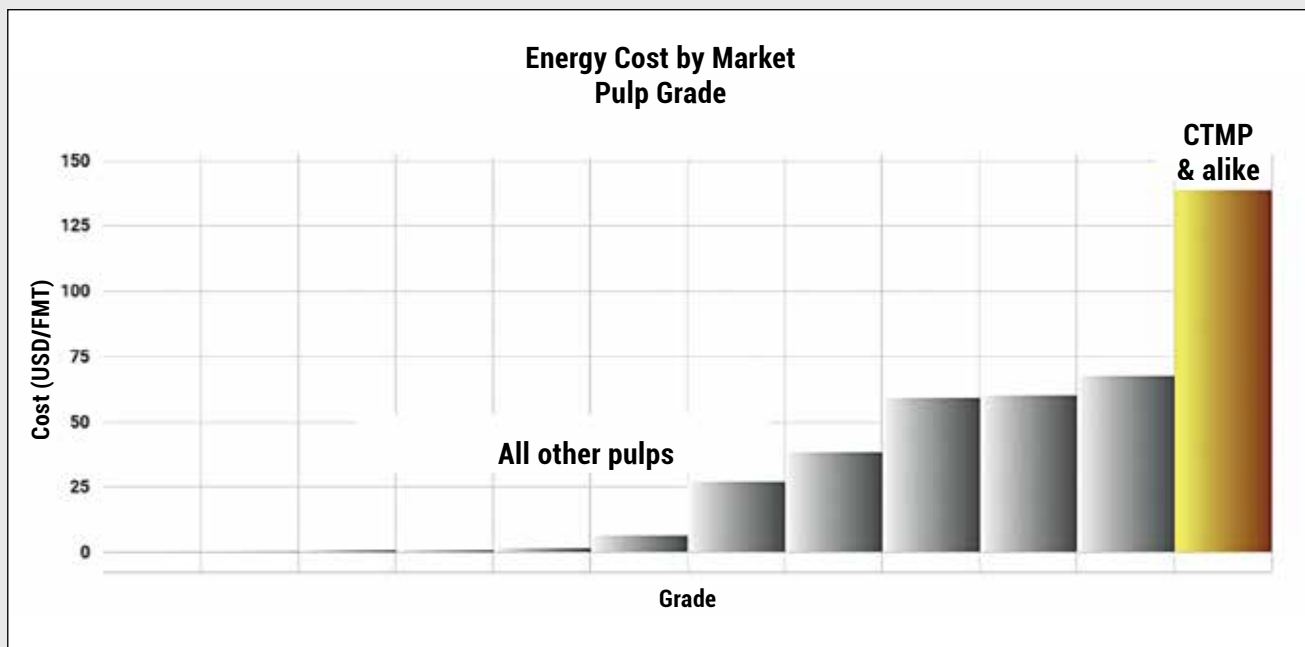


Figure 2. Energy Cost by Market Pulp Grade

CTMP being an energy-intensive grade, these advancements make producing it much easier and attractive.

However, from a strategy standpoint, this means each mill must take a few variables into consideration, to wit:

- Sell the energy surplus in the market?
- Invest in new integrated paper machines at the site to consume this energy?
- Produce CTMP, increase the yield and, consequently, save wood?
- Sell the tall oil instead of burning it?

Are You Passing Up Major Opportunities?

If you are a market pulp producer, it's important to analyze and consider the advantages of all your options. Dismissing a chance to pivot and produce a desirable and advantageous grade in your mill due to a lack of insight of what the big picture would actually look like could end up being a missed opportunity.

Before immediately crossing off an option from your list, it's important to make sure you have the right data. That way, you can better understand which pivot suits your mill the best.

Fisher International's Virtual Mills module can provide market pulp producers exactly what they need. A Virtual Mill is a confidential, user-defined mill that passes through Fisher's proprietary mass and energy balance model and delivered to the client via our business intelligence platform FisherSolve. Virtual mills can represent any greenfield, brownfield, rebuild or grade-change project.

The virtual mills are modeled with the same rigor as existing sites. The results – such as cash costs, energy consumption, or carbon emissions – can be visualized and benchmarked against existing sites and other virtual mills in FisherSolve. Analysis of Virtual Mill results can provide significant insights for decision-making as multiple scenarios can be evaluated.

With this tool, market pulp producers can assess the aforementioned variables and questions. This will help determine what options are available to make a new investment in a different grade such as CTMP. This is a critical tool, as in many countries this must be revisited every other year or so, given the constant changes in market variables such as energy policies. ■



The companies in the ResourceWise portfolio focus on forest products, pulp & paper and chemicals – natural-resource-based industries. Specifically, Fisher International offers unparalleled expertise and solutions for suppliers, producers and investors that inspires better performance in the capital-intensive pulp and paper industry. For over 30 years, Fisher International has helped companies across all aspects of the global pulp and paper industry be more purposeful in deciding how to best utilize their assets to gain tremendous advantages in efficiency, productivity and profitability. We help clients leverage their distinct strengths, augmented by the guidance surfaced through our rich data, analytics and expertise, to develop unique solutions their competitors can't imitate.