

IMPROVING FOR SUCCESS

The Daaquam wood transformation plant in Saint-Pamphile needed to increase its drying throughput and quality. It achieved that goal—and more—without new kilns.

CHALLENGE	SOLUTION	BENEFITS
Increase the sawmill's drying throughput and quality without purchasing new kilns.	Systems making it possible to maximize kiln throughput, quality, and optimize drying performance.	Better kiln throughput and quality, as well as streamlined operations for greater profits.

During the last wood crisis (2006–2009), the then Maibec mill (now part of Groupe Lebel) in the small town of Saint-Pamphile, Quebec, Canada, was facing the very real problem of having to decrease its operational costs without the capacity for massive investments.

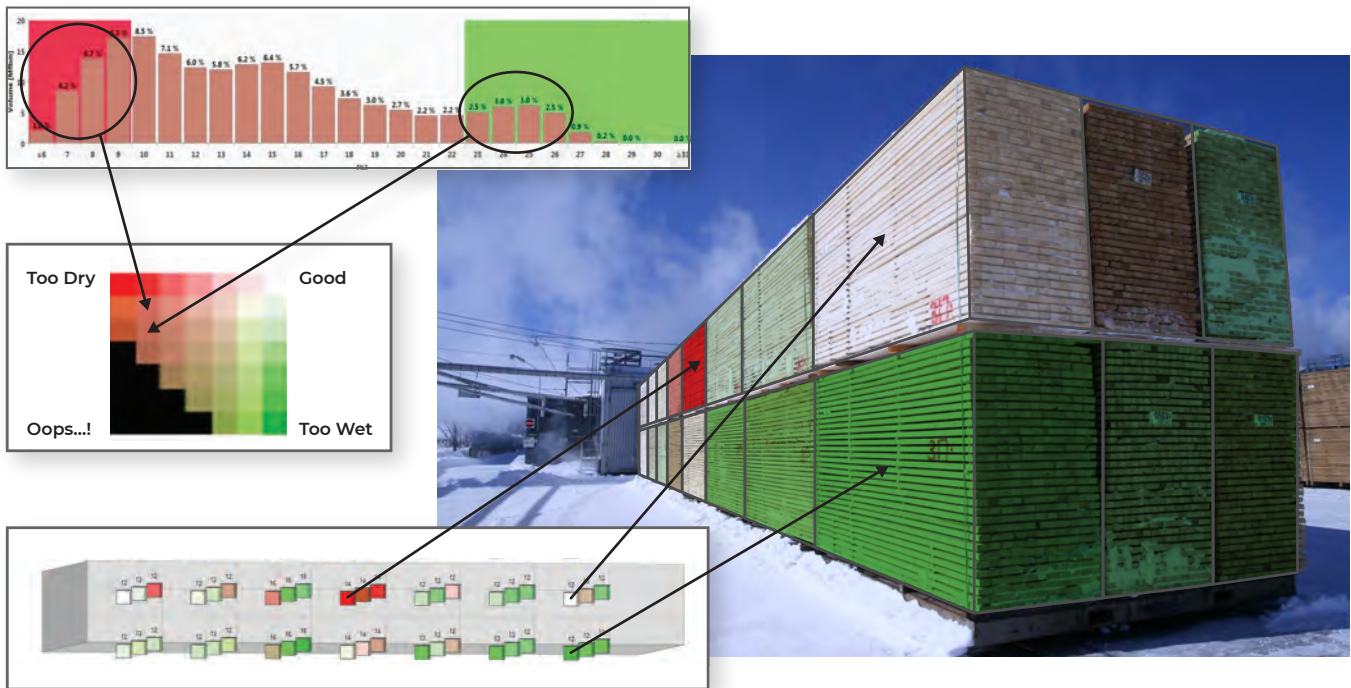
THE CHALLENGE

In wood transformation operations, drying is critical. It is directly responsible for the grades of products at the planer mill thus, ultimately, the quality of the goods sold by the mill. It can also be directly responsible for downtimes at the planer mill, where poorly dried wood splits and / or causes blockages.

Furthermore, when kilns are not loaded to capacity or loaded with bundles that all need to be dried differently, operational costs go up. Empty a kiln only to realize that the wood necessary to optimize the next load is not there creates delays and inefficiencies. Dry a suboptimal load and lumber comes out over and / or under dried, decreasing its end value. Another complexity specific to this wood mill was the large variety of lumber (over 100 products!) it produced. This is exceedingly difficult to manage from a drying standpoint, the results only being observed once the wood is at the planer mill.

These problems create a major bottleneck without the proper planning, scheduling, and tracking.





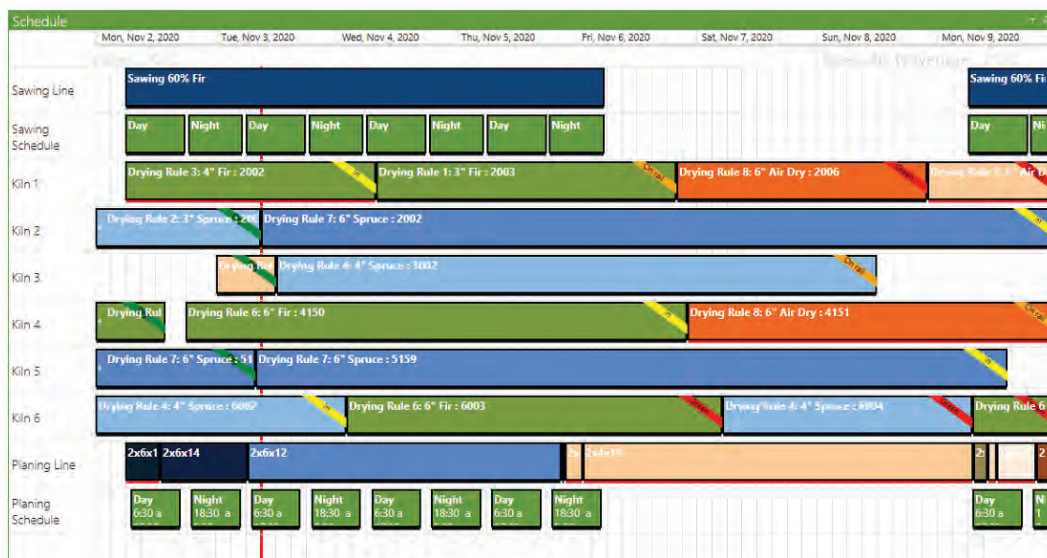
At the time, most of the mill's drying processes were managed manually, largely based on trial-and-error, and occupied an employee full time.

The Saint-Pamphile mill wanted to improve its drying, but new kilns were out of the question because of budgetary constraints. It therefore had to find other ways to improve. The mill's vision was to improve drying quality, making it possible to introduce value-added products to market.

THE SOLUTION

When PMP SOLUTIONS first approached the management at the Saint-Pamphile mill, we applied our knowledge of the wood transformation industry to assess the challenge. Our five-year collaboration with Daaquam yielded a three-pronged solution.

The first part of the solution was to deploy a tracking system—PMP WETRACK™—between the sawmill and planer mill, enhancing wood traceability. Once properly monitored, downgrading causes could be traced back to



drying and, knowing the load and rules used in drying that wood, Daaquam began to see patterns emerge across its product roster.

Analyzing the data from PMP WETRACK, we quickly understood that by improving load recipes and drying rules, considering kiln performance, bundle position in loads, as well as wood species, according to downgrading causes at the planer mill, we could drastically improve the quality of the wood output by kilns and increase overall quality down the line.

Which led us into the second part of our solution: deploying PMP WEDRY™. Its moisture control tools allowed us to optimize the entire drying process.

We were able to analyze loads and kiln performance which enabled us to develop and roll out approximately 10 drying rules yielding a product distribution of from kilns that would result in fewer downgrades at the planer mill.

Through this development, Daaquam was able to see moisture content distribution by load and bundle, which allowed us to further optimize drying rules according to species distribution and position within loads, which further led us to adopt a hybrid strategy involving air and kiln drying.

This led us to the third and final piece of the puzzle. Mill strategies are usually laid out over months and even years. They influence every aspect of operations: what timber to purchase, products to output, and new equipment to purchase. They also impact order fulfillment, inventory levels, equipment throughputs, and more. How could Daaquam efficiently coordinate all these to be able to build optimal kiln loads in a timely fashion? Through powerful planning and scheduling tools.



We were able to accompany Daaquam in elaborating easy-to-manage schedules bringing every piece of data gathered above and operations together with PMP WESCHEDULE™.

Through the hybrid approach mentioned above, Daaquam management was able to develop process-based schedules that included leaving certain products out to air dry, effectively increasing throughput, increasing lumber quality, and decreasing operational expenses.

All these tools, used together, enabled Daaquam to streamline its operations, increase drying capacity 20 %, drive product value up an average of 33 %, and free one employee to work on more value-added tasks.

Furthermore, the combined solution made it possible for managers at Daaquam to run scenarios to identify further avenues of improvement—adding factions, tweaking supply, improving productivity in certain areas of the mill—unlocking the potential for even greater profitability.

THE BENEFITS

Working with PMP SOLUTIONS to reach these goals, helping Daaquam materialize its vision of improvement, brought several benefits to the mill:

HIGHER PROFITABILITY AND LOWER OPERATIONAL COSTS

First, empowering everyone in the mill with powerful insights into its operations allowed sales and operations to better plan for market opportunities and operate better. All the PMP SOLUTIONS tools helped everyone streamline operations resulting in a higher-value product mix and more accurate sales promises. Further, better synchronizing every step of the mill operations drove revenue up and operational costs down through the rise in quality and better scheduling.

BETTER COLLABORATION

The information from PMP SOLUTIONS tools—available to everyone, anytime—puts everyone on the same page. All the stakeholders at Daaquam could work towards the same goals, no longer trying to “hog the blankets”. The concrete results were positive communication and collaboration between sawmill departments, a decrease in the volume of unrealistic requests, and better planning and coordination between departments.

HIGHER EMPLOYEE SATISFACTION

Beyond liberating an employee to concentrate on more value-added work, the heightened level of collaboration at Daaquam allowed everyone to perform their work more effectively and efficiently, driving unnecessary stress down, which made for happier employees.

A PARTNER DEDICATED TO SUCCESS

Finally, PMP SOLUTIONS understands the realities of wood mills. Thanks to our expertise and know-how, we're more than a simple service provider. We're a partner. We were there to help Daaquam understand its operations through the vast stores of data sleeping in all its operational technologies. We took that data and tailored our tools to better empower the mill reach its goals. This specific project was rolled out over five years. Now, the same can be done in months.



THIS IS ONLY A FRACTION OF WHAT WE DO.

Contact us today to find out how PMP SOLUTIONS products and services can help you grow your wood transformation business.



DRIVING
WOOD
TRANSFORMATION™

300 Dieppe Street
Québec (QC) G1N 3M8
CANADA

+1 581-891-7677
info@pmpsolutions.ca
pmpsolutions.ca

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