

A successful collaboration: Merinov and La moule du large

The Fine Art of Tailoring Technology

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Mussel farming in Quebec is currently grappling with some major challenges. Though the sector is growing rapidly, it is also confronted with problems of profitability. In particular, producers have little control over the selling price. Thus, to cut their production costs and continue to perform at high levels, some mussel farmers have turned to technological innovation.

That is the case of Christian Vigneau, president of La moule du large, who called on **Merinov**, a college centre for the transfer of technology specializing in aquaculture and fisheries, to optimize a prototype of the declumping and sorting machinery used in mussel harvesting.

The size and design of the model currently used by Quebec producers is not well suited for work at sea on board the boats operated by mussel farmers. Thus, at the industry's request, Merinov imported a more compact model from the French manufacturer Mulot, which appeared to be better adapted. And yet, the initial results were not up to mark: the machine was still too cumbersome and sorting performance continued to be mediocre. The project was halted.



Christian Vigneau was not one to be easily put off, however, and he urged Merinov to pursue its efforts. After another two months of optimization, the product was ready to be installed on the boat. This time, the results were there to be seen. The machine was now set at a right angle on the deck, thus freeing up considerable room around it. The flow rate improved, and sorting efficiency rose from 60% to 75%. Above all, this new set-up enabled the crew to work continuously, meaning there was no longer any need to stock mussel seed and stop harvesting in order to get on with sorting. The time savings were substantial.

"Weather in Quebec is particularly fickle, so there are precious few days you can spend out at sea. Now, we can make the most of them, and yields have increased considerably," explains Mr. Vigneau.

The machine also had to be adapted to the particular characteristics of local harvesting. "The mussels found around the Magdalen Islands tend to be a bit bigger," explains Aurélie Licois, a professor-researcher at Merinov and project leader. "The team of researchers thus adjusted the spacing between the drum slats to improve the quality of sorting."

Mr. Vigneau is more than satisfied with this technological advance, which he has been alone in using until now. However, several other producers have shown an interest in it. As for Merinov, it continues to scan the horizon and is already considering making new modifications with a view to optimizing its prototype. □

