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One-man Mill Fits the Bill

Alberta's Fred Priestley-Wright was looking for a one-man sawmill, and he's found a Mobile Dimension Mill fits the bill, producing quality product, everything from dimensional lumber to paneling and flooring.

By Tony Kryzanowski

Fred Priestley-Wright, the owner of Purple Tree Lumber, is one of those individuals who lie in bed at night trying to think of a way to build a better mousetrap, even though he is semi-retired and well into his 70's.

A former engineer who worked on the legendary Avro Arrow program, Priestley-Wright went on to operate a highly successful engineering firm with 30 employees, only to sell that business because it was getting too big and wasn't fun any more. He moved back home to the family farm to raise cattle.

It grew to a 300-head cow-calf operation, but like his engineering firm, it got to the point where it got bigger than he could manage. So he sold the ranch and kept the home quarter. Today, Priestley-Wright applies his grey matter to various types of lumber products manufactured from his one-person sawmill in Niton Junction, Alberta, about an hour-and-a-half west of Edmonton, on the Yellowhead Highway.

"About 10 years ago, I realized that there would be a lot more value in my wood if I value-added," he says. "At that time, I was a county councilor and chairman of the county Economic Development Committee, dealing primarily with small, independent sawmillers and loggers, trying to convince them to value-add. They essentially said, 'well, show me', so I decided that maybe I better do that."

He's sawn a lot of rough dimensional lumber primarily for farmers and ranchers over the years, but lately, he has found a good market for profile lumber such as 1 X 4, 1 X 6, 2 X 6 v-joint paneling and 2 X 6 tongue and groove flooring.

"I'm small, so I am really, really flexible," says Priestley-Wright. "I'm also a workaholic and I just love working outside. I try to only work five days a week but sometimes I kind of go over that.

"What's nice about doing custom orders is if my orders are pretty well caught up, I'm on schedule, and the fishing is good, I can turn off the key and go fishing."

The backbone of his operation is a Mobile Dimension Mill manufactured by Oregon-based Mobile Manufacturing, which gives him the ability to break down fairly large logs. However, he tends to stay away from oversize logs often put on the market by high production sawmills, because of the amount of compression wood in the butt end. Another attraction of the Mobile Dimension Mill is that after the first slab comes off, it edges each board as part of the sawing process, thus eliminating the need for an additional edger.

"I chose it because to me, it is a good one-man sawmill," says Priestley-Wright. "You take your first slab off and your next cut is an edged board. To me, it was efficient and I kind of liked that. You don't have to have an edger and you don't have to have more people. It also lends itself to quality production."

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The Mobile Dimension is a circular sawmill with a vertical blade and two horizontal blades. The top horizontal blade is adjustable from 2" to 12", depending on the desired cut. The saw head can be set to return on its own after a cut, and in doing so, it pushes the board that was just sawn back. In doing so, the operator can deck lumber as he is sawing. Priestley-Wright says he is amazed how easy the sawmill is to maintain.

"It runs on a Volkswagen engine," he says. "It's simple, easy to maintain, and runs well. The manufacturer has a full stock of parts, they are very, very reasonably priced and delivery is really good."

Priestley-Wright evaluates each board as it comes off the sawmill and he decks it accordingly based on the size and quality of product he believes he can capture from it. A cattle ear tag is attached to each deck of lumber, which relates to notes that he keeps as to the source of logs for each deck and quality of lumber it delivered. This data collection system helps him to select the right quality of lumber for value adding at the planer. Pine lumber air dries for about two months, which brings it down to about 15 percent moisture content.

Complementing the sawmill is a Nyle dehumidification kiln. The kiln is used primarily to dry the pine lumber destined for interior use down to about eight percent moisture content.

His planer is a Beaver 49 planer, which Priestley-Wright describes as an antique—sort of like himself.

In addition to traditional pine and spruce products, he also manufactures tamarack paneling and flooring, having conducted considerable experimentation and perfected his drying method for green tamarack lumber. Also known as eastern larch, tamarack is among the hardest softwood species and was traditionally used for fence posts and barn floors. Lately, it has garnered considerable interest in residential flooring because of its attractive grain and hardness. It also has a reputation for being extremely prone to twisting when it dries.

"I have a dehumidification kiln so I can dry it slowly and that is the secret with it," Priestley-Wright says. "I've got it to the point where it is now profitable to work with it. It's the appearance more than anything and the uniqueness of tamarack that attracts people to it. It has some beautiful grain. I have a tough time producing it at maximum because I spend too much time admiring the grain in the wood."

While other tamarack flooring producers use weight on their kiln charges to stop the tamarack from twisting, Priestley-Wright places 4 X 4 birch squares across the top of his carefully spaced charges, wraps the charges with 2" cargo straps and then tightens them as much as he dares. "Twice a day I go in and tighten it up when I check to see what the kiln is doing and I keep it really, really tight. I don't have that much of a problem," he says. "The other thing is that you have to be selective with tamarack. If you have a fair-sized knot, it is going to bow and there is nothing you are going to do about that." He has also taken advice from other old timers who have suggested that he leave tamarack logs to air dry in the deck for two years before bucking and sawing, and that also has worked well to avoid twisting.

Local logging contractors often let him know when they encounter a quality stand of tamarack, because sawmills would prefer not to accept this wood species at their mills. Because of this, the price for the tamarack is quite reasonable.

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He has also sawn lumber from aspen although finding a source of quality aspen without centre rot is difficult, and he has also experimented with balsam poplar, which is a species he feels has considerable potential. He'd like to be able to manufacture solid wood products from birch, but he can't compete for the logs with local firewood producers.

Priestley-Wright's natural penchant for quality attracts business. He doesn't advertise, yet people still find him—many of whom are planning to build a cabin or their country get-away and are looking for ideas on what to use for construction material or people who are involved in a renovation project.

Then there are the highly specialized orders, like one he filled for 200 pieces of planed 4 X 6 clear pine. "That was a challenge," he admits.

He also produces a 5/4 x 4 decking product with the top two corners edged on his planer and it has also become a popular item.

In terms of wood supply, initially he sourced his logs from oilfield salvage, but its availability was heavily dependent on the level of activity in the oilpatch. Now, he sources his pine from falldown material offered by a local power pole manufacturer, Brisco Wood Preservers, of Peers, Alberta.

"Once they get the pine peeled, it may not be up to snuff for power poles, but there is a lot of good lumber that can be recovered from it," says Priestley-Wright. "There is red stain in some of it and that is why it is culled from their operation, but hey, red stain paneling sells really, really well. I refer to it as lodgepole pine mahogany and it seems to work okay."

He says his relationship with Brisco works well given that he is a one-person operation. He can request delivery on demand and he doesn't have a lot of cash tied up in log volume sitting in the yard.

In terms of offering advice to other potential specialty sawmillers, Priestley-Wright suggests that individuals start slow and explore niche markets.

"Man, there is so much niche market potential out there," he says. "With a small operation, you can switch from one product line to the next product line in a matter of hours. You can learn where the niches are by what customers are asking for. I make a profit. I don't make big dollars, but that's my choice." He estimates the capital cost for new equipment in his type of set-up at between $75,000 and $100,000, but it could cost a lot less by purchasing second-hand equipment.

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