

## Forestry in the Spotlight – Stratton Lumber and the Timber Resource Group

The Bureau of Parks and Lands is responsible for the stewardship of approximately 630,000 acres of Public Lands across the State of Maine. These lands represent some of the best natural habitat, recreational and timber resources in the State of Maine. Receiving no general fund revenue, the Division of Public Lands is statutorily obligated to practice sustainable forest management, harvesting timber to promote forest health and productivity while producing revenue to manage the land and support Maine’s forest products economy. An average year will see the production of 120,000 cords on harvests covering roughly 10,000 acres.

The Bureau relies on numerous partners in the logging and forest products industries across the State of Maine. In a recent conversation with one of these partners, Allan Ryder, President of Timber Resource Group (TRG), he described the history and work of Stratton Lumber and TRG.

Allan is proud of the Timber Resource Group Log Buyers & staff and the work they do, and the continued forestry tradition in Maine. Born in Farmington, Allan has gotten to know the Maine woods since childhood. He graduated high school from Greenville then went to the University of Maine, Orono where he received an associate degree in Forest Management Technology then a bachelor’s degree in Forest Management. He was working in New Hampshire as a forester when the Log Buyer position at United Forest Resources (UFR) opened. He jumped at the chance to see more of New England and meet more people. UFR was the log procurement company for Stratton Lumber and six other sawmills and one veneer mill located in New England and Quebec at that time. Allan noted that, “Building relationships is the most important part of position.” His jump was a good one - he has been buying logs for Stratton Lumber since 1990, working his way up from a Log Buyer to the President of the Timber Resource Group.



Stratton Lumber started as a family owned two-country business in 1981 by the Fontaines (Alfred and children Jean-Paul and Suzanne) of Woburn, Quebec along with business partners in Maine. Nicolas Fontaine, third generation in the business, continues to run the business today.

Timber Resource Group, founded in 1998, is a subsidiary of Stratton Lumber and is the log procurement company for Stratton Lumber. TRG buys spruce and balsam fir logs and treelength high grade in three ways:



1. Direct to Stratton Lumber Sawmill
2. Into TRG Log Yards (3 in Maine, 1 in NH, 3 in Vermont)
3. Roadside throughout New England, New York and as far south as Pennsylvania



TRG buyers, covering ME, NH, VT, MA & NY, have a forestry degree or background, and all are Maine Licensed Wood Scalers. They work with about 50 direct-to-mill log suppliers, including most all the major landowners and the Maine Public Lands managers in the State of Maine. Stratton Lumber has a total of over 500 log suppliers when you add up the direct-to-mill, TRG Log Yards and Roadside suppliers. Allan noted that, "The Maine Bureau of Parks and Land's Regional Managers do a great job managing the Public Lands forests. They consistently produce very good quality spruce and fir logs."

Trevor Lewis, a Licensed Professional Forester in ME and NH, Licensed Wood Scaler in Maine and a NH Licensed Weighmaster, covers the entire State of Maine buying logs direct to Stratton, into TRG Log Yards in E. Newport, Passadumkeag and Rumford, as well as roadside from various locations throughout Maine. Trevor is also in charge of Mill Residuals Sales for Stratton Lumber.

The TRG Log Buyers purchase Spruce: Red, White, Black & Norway, and Balsam Fir logs (12'-14'-16") down to a 5" top, and treelength high grade stems 29 feet and longer down to a 4.5" top (inside bark) diameter. The logs are purchased on weight (by the ton) and on log scale (board feet); where the board feet is determined by measuring the length and diameter of each log. The treelength high grade is all bought on weight (by the ton).

Stratton Lumber saws about 80 million board feet of lumber per year and the finished lumber is shipped out by truck to New England, New York, Pennsylvania, Maryland and as far south as Georgia and as far west as Wisconsin & Illinois. According to one estimate, a typical 2,000 square-foot-home uses nearly 16,000 board feet of lumber (in addition to plywood or other structural panels). By that token 80 million board feet would supply enough 2x4's and other dimensional lumber to build 40,000 homes a year.

While BPL sells to 40 different mills across Maine each year producing a variety of products, spruce-fir sawlog volume has averaged 23 million board feet annually, enough for about 16,400 homes. That spruce/fir volume represents about 38% of the total BPL harvest across all products.

Allan mentioned challenges to the industry today include getting enough logs to the mill, "Especially during the rainy season, and we now have two mud seasons, both in the spring and the fall!" This is a result of changing climate patterns. There is also a lack of a low-grade softwood pulp market, in large part due to the explosion of the pulp digester of the Jay Mill in April 2020. This affects all the loggers, landowners, land managers and sawmills. Green sawmill chips can be difficult to market at various times throughout the year with one less pulp mill taking roundwood and chips. This drives home just how intertwined Maine's forest products economy is and how important it is to have diverse markets for the full range of products ranging from beautiful veneer logs to framing lumber to pulp grade wood for paper and biomass for wood energy. Maine's evolving timber markets are the source of a whole different story.

But Allan takes on the challenges and continuously looks for new markets and opportunities for TRG. He notes that, "The Forest Products Industry is an 8 billion dollar industry in Maine, and Maine and New England are growing more wood than is being harvested." Well-managed forests make healthy forests and a sustainable timber industry, and Allan Ryder is proud of being part of the forest products industry in New England.

The sawmill and residuals processing involves highly trained people and amazing equipment. It has come a long way since the first log was sawn at Stratton Lumber 40 years ago!





1. Slashing tree length into logs.



2. Logs on deck going into mill.



3. Metal detector scans for nails, wire, and other metals.



4. Sawyer Booth controls laser scanning and robotics.

## Basic Sawmill Process at Stratton Lumber

*Photos courtesy of TRG, Stratton Lumber*

1. **Treelength high grade is processed into logs** (12'-14'-16' with 4"-6" trim)
2. Logs are loaded onto the **Log Deck**; then go through a **Debarker** – goal is to remove 100% of the bark with minimal fiber removal
3. Logs pass through a **Metal Detector** and if there is metal, they are kicked out of the mill.
4. Each log goes through a **Liner Scanner**, which scans the logs every ¼" to determine what the saw pattern will be. Then the logs go through a **Chipper/Canter** – chips two sides of the log leaving flat surfaces on two sides and produces a cant. Then it goes through the **Twin Band Saw** – can take a board of one or both sides of the Cant. Those boards (1" or 2" thick) go to the
5. **Edger** which gives boards a straight edge.
6. The cants go to **Canter-Profiler-Gang (CPG) Saw** – which cuts them into boards:
  - a. If cant is 4" thick – it produces 2"x4" lumber, 6" cant produces 2"x 6" lumber, etc.
  - b. Widest board we produce is a 2" x 10" and narrowest is a 1" x 3"
7. Next the boards go to the **Trim Saw** – cuts the ends of the board to a final length:
  - Boards go to Green chain – 65 bins for all products
  - Spruce and Fir are kept separate as they require different drying times.



5. Edger.



6. Green lumber bundles go to kiln.



7. Kiln: continuous kiln dry.



8. Planer Mill.



STRATTON LUMBER INC.



8. Boards then go to the **Automatic Stacker/Sticker** then head to the
9. **Dry Kilns** (photo7) Stratton has two batch kilns and one continuous kiln. Stratton Lumber installed the first continuous kiln in the northeastern US in 2017.

8. After the lumber is dried it goes to the **Planer Mill** (photo 8), where they are planed, graded and lumber bundles are

### Residuals

When you saw a round log into square lumber, half of the volume **goes into** lumber and the other half goes to **mill residuals**:

**Bark** is sold to biomass plant facilities to produce electricity and used to produce mulch for landscaping.

**Green Chips** are sold to various paper mills to become newspaper, magazine paper, cardboard boxes.

**Sawdust** is sold to wood pellet mills, particle board mills and used in our own boiler to produce steam for our kilns.

**Dry Shavings** are used for litter for farm animals and other similar uses as sawdust.



9. Unique ID # and grade stamp on each board.



10. Lumber ready to truck.