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Minnesota Firewood Business in High Gear

Wood Beaver Firewood Processor from Resource Recovery Systems Boosts Production



Red Salzbrun at the controls of his Wood Beaver 1x42 Green Speed firewood processor; deck at left holds logs in place, ready to feed into the processor.

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SOUTH HAVEN, Minnesota — Red Salzbrun, owner of Red's Firewood, built his first firewood splitter, which he still has and uses. In fact, he keeps modifying it, the most recent addition being a hoist.

The workhorse of his business now, however, is a firewood processor he purchased in September from Resource Recovery Systems in Hartford, Wis. "It got to the point where I was going to slow down or get a firewood processor," said Red.

He bought a Wood Beaver 1x42 Green Speed from Resource Recovery Systems. The machine is made by a Finnish manufacturer.

"I'd been shopping around for a couple of years," said Red. That included lots of searching on the Internet and comparing specifications of machines. Red was already interested in the Wood Beaver 1x42 Green

Speed before he saw the machine at a trade show in Brainerd, Minn. last summer.

Cutting and splitting firewood from Labor Day to Memorial Day, Red focuses the first few months on producing large pieces of firewood for home-heating customers that buy loose cords or fractions of cords. Then, in early winter, he begins producing smaller pieces that will be sold to a campground for the summer. When he talked with *TimberLine*, Red already had processed between 25 and 30 cords with the Wood Beaver using a six-way wedge.

Red sells all seasoned firewood. He owns a 40-acre farm, so he has plenty of space for his firewood operations. When the Wood Beaver machine is not running, he keeps it stored in a shed.

"I do mostly oak," said Red. "That's 99 percent of my business." He also gets a lot of requests for birch. Red gets logs from various suppliers, including a company that clears land for quarries. He uses a Bobcat

skidsteer to move logs and lift them onto a deck to be fed into the Wood Beaver.

The impact of the Wood Beaver 1x42 Green Speed has been remarkable. Before, Red used to produce about a cord of firewood per day. With the machine, he can process a cord of firewood in an hour. (The machine can produce two or more cords per hour, according to Resource Recovery Systems.) That was his production rate in the fall. He expects output to increase with frozen wood. "The colder it gets, the faster it goes," said Red.

Of course, that's within limits. For instance, if the ambient temperature gets so cold that the tractor's diesel engine gets sluggish, he suspends operations. "Right now, it's 22 below," said Red. "I can wait until it warms up." Temperatures below zero are not optimal for operating the tractor.

Wood Beaver firewood processors are manufactured in Finland by Maaselan Kone Oy. The company produces 3,500 of the

machines annually, which makes it a leading manufacturer of firewood processors. They are marketed and sold throughout Europe under the name Hakki Pilke, which means 'firewood.'

Resource Recovery Systems is the largest U.S. importer of this line of firewood processors, which are sold in the U.S. under the Wood Beaver brand name. Resource Recovery Systems, with its friendly, knowledgeable staff, has been in business for 15 years. Seven models of the Wood Beaver and a firewood splitter are available to U.S. customers.

All Wood Beaver firewood processors are designed to be powered by tractor PTO. Resource Recovery Systems also offers a Honda 24 hp gasoline engine 'power pack' that will run any of the Wood Beaver firewood processors.

The Wood Beaver machines are designed to process logs up to 100 inches long; they can accommodate longer logs by adding infeed tables or decks.

The most popular model is the Wood Beaver 1x42 Green Speed. It can be operated by one person and can produce two to three cords of firewood per hour, according to Resource Recovery Systems and the manufacturer. The machine can cut and split wood up to 17-1/2 inches in diameter, and the log advances with a belt infeed. It features a highly productive splitting system — the 'Green Speed' system — comprised of two hydraulic cylinders. The splitting system normally utilizes one cylinder; a sensor that detects pressure can automatically activate a second cylinder for added power. The first cylinder has a force of 8,378 pounds; when the second cylinder is activated, the splitting system has 29,100 pounds of force. The machine comes standard with a two-way and four-way splitting wedge.

Other features include an 18-inch bar saw for bucking, joystick controls, and a radial folding conveyor that swings from side to side and has an adjustable speed. The Wood Beaver 1x42 Green Speed weighs 2,348 pounds. It can be moved with a tractor hitched to the three-point mount, fork tines or lifted with a chain or cable. It requires a minimum 20 hp engine for operation with a tractor PTO and functions at the lower (540 rpm) PTO setting. Options include a hydraulic log lift, a live deck or a gravity deck, and six- and eight-way splitting wedge.

The second most popular model is the Wood Beaver 1x37, which can process logs up to 15-1/2 inches in diameter. The Wood Beaver 1x37 features a 16-inch bar saw for

bucking and splits with a two-way and four-way wedge; it also comes with an outfeed conveyor. It is available as a manually-powered model to operate the bar saw and the splitting wedge or hydraulic-powered with joystick controls. This unit also requires a tractor with at least 20 hp to power the processor, and it can produce two or three cords of firewood per hour. Options include a hydraulic log lifter, live log deck or gravity log deck.

The Wood Beaver 60-OH features a circular saw for bucking and can process logs up to 27-1/2 inches in diameter at a rate of one or more cords per hour. The log is advanced manually along a roller trough. A two-way and four-way splitting wedge is standard. The unit weighs 1,000 pounds.

The Wood Beaver Hawk model has a trailer package and can be towed by a pickup truck. It can process logs up to 11-1/2 inches in diameter at the rate of one or more cords per hour. Bucking is with a 13-inch bar saw, and it comes standard with the two-way and four-way splitting wedge. It features a 10-foot conveyor and weighs 1,000 pounds. Options include a Honda 13 hp gasoline engine and six-way splitting wedge.

The Wood Beaver Eagle also uses a circular saw for bucking and can process logs up to 11-1/2 inches in diameter at a rate of one or more cords per hour. It features a screw splitter. It can be powered by a Honda 6.5 hp gasoline engine and weighs 400 pounds.

The Wood Beaver Z100 is a splitter. It is adjustable and designed to split wood ranging from 10 inches to 42 inches long. Splitting is accomplished with a two-way and four-way wedge.

The Wood Beaver 1x42 Green Speed is designed for the highest productivity with the least power irrespective of log diameter, and it is also configured for safety. The saw can be stopped at any time, and the machine guards must be closed in order for the machine to split or cut.

Before he bought the Wood Beaver 1x42 Green Speed, Red bucked the logs on the ground with a chainsaw and then split the pieces with his homemade splitter. "I would burn up the gas in the chainsaw and then start splitting," he explained. Red owns a Stihl and a Jonsred chainsaws and likes both brands.

Red was a truck driver for many years before starting his business in 1988. As a truck driver, he drove to every state in the nation except Hawaii.

His life changed overnight 20 years ago. "I was driving trucks and the company filed bankruptcy," Red recalled. One day he

had a job, and the next morning he did not.

He began scanning help wanted ads. "I was looking in the newspaper, and there was an ad for hauling wood for a tree service," he said. Red saw the possibilities in a firewood business and decided to begin collecting logs and processing them into firewood.

The Wood Beaver 1x42 Green Speed is taking the lead role now and doing what Red expected it would: simplifying his operation. The Wood Beaver firewood processor makes the work easier on him and produces more firewood, and faster. "I was looking for an easier way out," he said. "I'm looking to make a little more firewood. I pretty much do everything myself."

Resource Recovery Systems, which has been in business going on 15 years, sells a wide range of equipment for forestry operations and homeowners. It puts a special emphasis on interaction and responsiveness with customers.

In addition to distributing the Wood Beaver line of firewood processors, Resource Recovery Systems manufactures a firewood bundler under the Wood Beaver Twister name that packages firewood (12 inches to 24 inches) in stretch-wrap. It comes with four bins that can be filled with firewood to be loaded into the bundler. As the bin of firewood is loaded into place, the wood is held into place by four tines, and the empty bin is removed underneath. The operator places the stretch-wrap onto the firewood and activates the machine by a foot pedal, and the machine quickly wraps the bundle. The cycle time to wrap one bundle is 12-15 seconds, and one person can wrap 45-75 bundles per hour, according to the machine. A tension spring clutch adjusts how much the stretch-wrap stretches. The machine is powered by a 1/4-hp electric motor. Resource Recovery Systems also supplies stretch-wrap and web nylon carrying handles that can be attached to the wrapped bundles.

Resource Recovery Systems also sells Morbark tub grinders, wood hogs, chippers and harvesting units; CEC crushers, screeners, wash-plants, stacking conveyors; Multitek trommel screeners, firewood processors, conveyors, grapple attachments, wheel crushers; MSG portable sawmills; and Seppi M brush cutters.

Red has an 18-foot flatbed truck and delivers firewood as far away as Minneapolis-St. Paul, which is 80 miles southeast of his home in the village of South Haven.

He enjoys being in business for himself. "I can work at my own pace," he said. "I can take a break whenever I want."