

Marketing of low-grade timber products in the San Juans

Presentation by Rich Harvey

Harvey Logging, LLC

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Harvey Logging, LLC

Based on Orcas Island in business for the last ten years.

Family has been involved in forestry and firewood sales on Orcas for over fifty years

Specializing in all aspects of forest management and residential tree care



What is the commonality





WOODY FIBER

The difference is the pictures are showing it in many different forms. Which is the manufacturing aspect

The more manufactured, the higher cost incurred to create the saleable finished product

The value of fiber

The value of fiber or manufactured product is economics 101

Value is determined by desire and a person's lack of ability to produce a product

The more raw the fiber the less value but the least amount of money spent in extraction

The more time it takes to manufacture the higher the cost of the finished product...**Time is Money**

Tree to finish product

Costs are incurred from the first day looking at the land, the office hours calculating volumes, available products, available markets, transportation costs, extraction cost, mobilization cost, permitting, drafting and ratifying the contract

Then we set foot on the land; pay the upfront cost to mobilize and start. Plan for the first several weeks to run on reserves until enough of product is manufactured to ship and the check from the buyers arrive

Then the sweat starts and the diesel flows as we take a standing tree from its natural position to the its first (and rawest form) of sellable product, though it doesn't stop costing money until it reaches the buyer

True fiber value - Timber

The value of fiber is the calculation of expenses against the value of the finished product

Logs are paid per 1mbf (1,000bf) current price of fir \$575/mbf

3.5mbf for the average load= \$2012.50

subtract \$900 for trucking = 1112.75 gross (\$254.14/mbf)

Stumpage of 25% to home owner= \$278.13 (\$ 92.71/mbf)

Amount to complete the logging (loggers take) = \$834.64

$\$834.65 / 3.5\text{mbf} = 238.46/\text{mbf}$

Fuel, hours of labor, machinery time, wear and tear come out of \$238.64/mbf

10" 40' logs = 150/bf which equals 24 logs per load

Firewood as a Revenue Resource

Firewood is valuable commodity in the San Jauns

But the value is limited by the amount it costs to make the finished product (cutting the tree, removing them from the stand, processing the firewood, loading and delivering the product)

Time and fuel= cost vs profit

True Fiber Value - Firewood

Fiber content – 500bf/cord of firewood

1 cord = 128 cubic feet finished product

1 cord = \$250/value

delivery= \$ 50

processing= \$100 (4 hrs @\$25/hr)

cold decked value = \$100/cord--\$50/mbf

Typical tops with the logs from the previous slide

20' logs w/ 6" tip (20 bf ea) = 25 sticks per cord

The challenges of marketing firewood

Firewood is only valuable if it is burnable.

The amount of patrons that purchase and cure their own firewood is far outweighed by the number that want to purchase dry firewood in the burning season

This translates to the need for processing firewood a year before it is sold. This also means that more time is required, as the firewood needs to be handled at least one more time to deliver it.

It also means that you need to have a lot to store the product while it cures from green to dry

All of this adds up to more expenses

Time

The time it takes to process firewood from a log deck to the back of the truck for someone who makes a living at it is about 2 cords per day

This makes the rate of production fairly low for a market of hundreds of cords, especially when clients want to wait until fall for receiving their firewood

Newer technology can increase this rate to two cords per hour if you have the woodlot to store it and are willing to. This allows for the supplier to fully cure before they sell the firewood, and get the best price for it

Size matters

When it comes to logging and firewood production the larger the diameter of the log the more volume of fiber. This directly translates to the amount of time it take to create a cord of firewood.

3 foot diameter logs take about fourteen blocks whereas a 12" log takes close to a hundred blocks. Think on the amount of cuts and extra movements (time) to get the same amount finished product.

This is the main reason precommercial thinning for firewood is not performed much. The costs out weigh the profit.

How can this be amended?

Newer Technology

The time is money can be defeated with money

Advancing in technology can reduce the time required to produce the finished product

This Cord King Firewood Processor purchased by Harvey Firewood Sales in 2015 carried a price tag of \$65,000 and produces an average of 2 cords per hour

Smaller diameter 10-15" logs are the fastest producing firewood for the machine

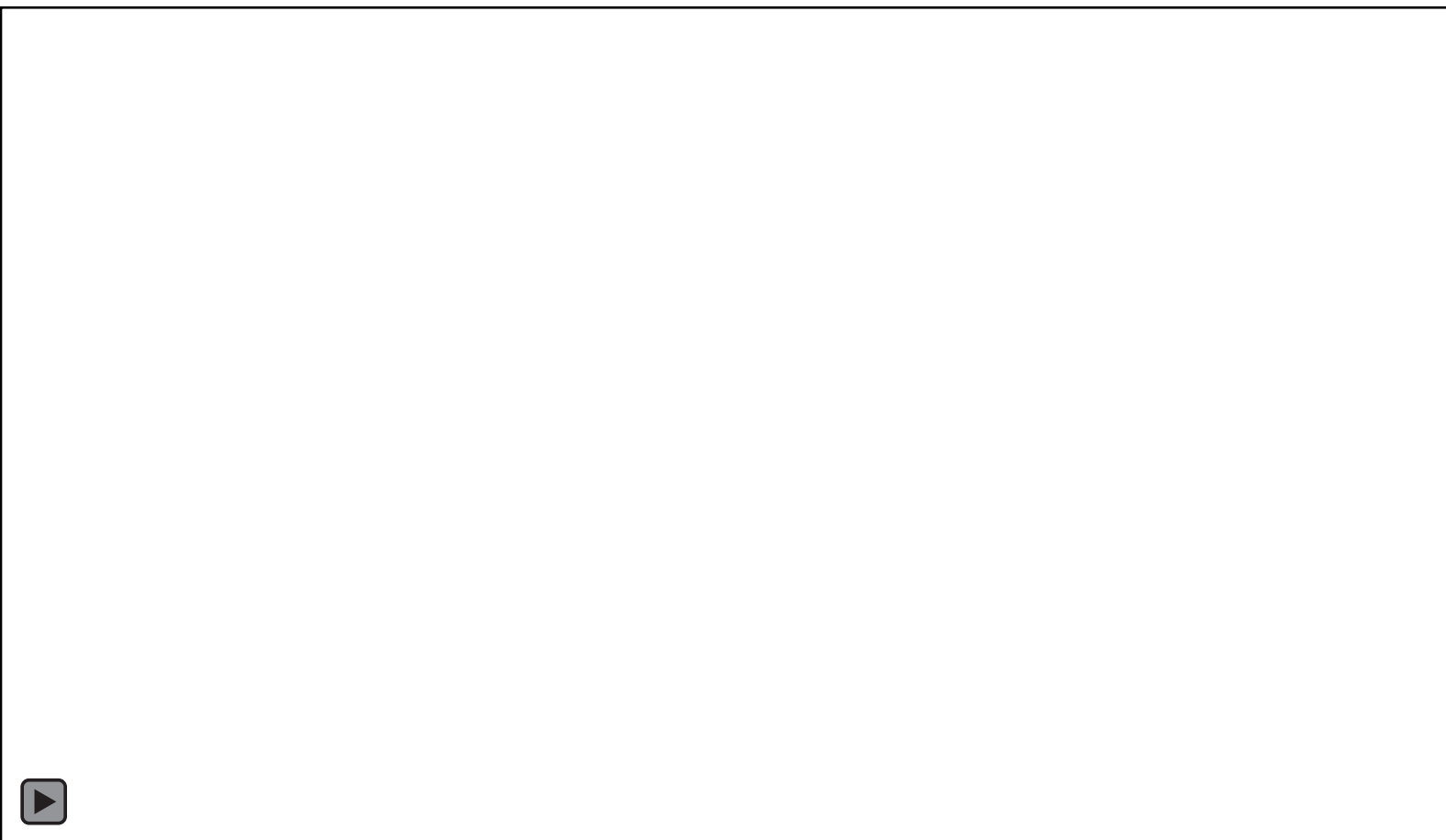


Investment return

Harvey Firewood Sales made the investment because of their partnership with Harvey Logging, LLC

The current supply of one hundred cords of firewood has come from the cleanup of all unmarketable fiber from logging operations in 2015

Harvey Firewood also processes by the hour for private and commercial clients



Advantages of the processor

It allows logs up to twenty inches in diameter and twenty feet long to be processed at a rate of two cords per hour

In an eight hour shift where a single person hand processing could produce 2 cords of firewood an operator can produce sixteen plus cords

Firewood is processed from the logs up to 20 feet in length to split and loaded in a vehicle without being handled by hand

Greatly reduces the stress on the body

Portable and able to set up on site with limited space and time

Disadvantages

Requires a sufficiently sized machine to load the logs

Requires a steady supply of product and cliental to pay for the investment

Huge start up costs for the Processor, a loading machine, delivery vehicles

To date the first year start up for Harvey Firewood Sales is around \$100,000

Supply and Demand

As with any commodity, firewood pricing varies with condition, type (species), time of year

The demand for cured firewood is high October through February and some sellers seem to wait and charge as much as someone is willing to pay for it

This business method works for part time wood cutter with a limited supply but not well for sellers who want to sell a business supporting amount of firewood

Over the last sixty years that my family has sold firewood there is not a time remembered that DRY firewood could not be sold in the winter time

Adjusting the markets

Species oriented processing is important for getting the most value of firewood.

Harvey Logging/Harvey firewood sells firewood with a clear understanding between clients and seller about the species

Doug fir is the desired species for the San Juans which gets the premium price

Alder is less desired for heating houses but desired for cooking. Harvey Logging supplies a restaurant and several caterers with about 25 cords a year

Hemlock/White fir/Pine are the least desired for heating houses so Harvey Firewood bundles 25 cords a year for campfire wood bundles retailed at local businesses

Madrone is very desired and can be sold at a high price per cord but it is the smallest quantity available

Precommercial thinning in the San Jauns

One of the main goals for the partnership of Harvey Firewood and Harvey Logging is to make use of all available wood fiber. Precommercial thinning is very beneficial for the timber stands but has no value to pay for thinning



This goal of having more marketable products is to reduce the cost of precommercial thinning to promote landowners to start maintaining their land

Prices of precommercial thinning without making a product runs \$1,500 plus per acre. This expense makes most landowners balk at performing any work. Which leads to more unhealthy/unproductive timber stands

With the advancement of technology Harvey Logging/ Harvey Firewood are hoping to get that number much lower per acre or in the best case scenario free to the landowner (stumpage based on the value of the fiber)

In April we will start and experiment with the Willis Property on Orcas Island to evaluate if thinning a over stocked timber stand of the 14" minus DBH material can pay and make a profit thinning for the firewood

Spring Bay Fifty Job

Commercial harvest across the diameter timber thin on fifty acres

Doug fir and Alder

Finished desired look is a very clean job, The landowners run a vacation rental/kyak tour based company that uses their land for recreation

90% Fiber being marketed from the job- 25% stumpage paid on fiber value

The 10% fiber not being marketed is being chipped and layered over all the skid roads.

Products:

Saw Logs for a domestic Mills

Saw Logs For export

Saw logs for Island based Sawmilling

Firewood, 2 species

Landscape Chips, 2 species

Other Fiber Products

Currently Harvey Logging is working on the market development for high quality wood chips

The product is well suited for erosion controls, soil amendment, noxious weed abatement, landscaping, mud control, trail construction

This expansion also leads to the need for storage, knowledge of how the fiber breaks down and the way the each species affects the ground

Cedar prevents things from growing. Alder breaks down and induces nutrients to the soil quickly. Fir holds up well to foot traffic, has nice color and is durable. Chipping with lots of limbs and greenery molds, creates heat, is harder to move and breaks down quickly

Harvey Loggings Tracked self propelled disc chipper





Fiber Value - Chips

Fir Chips

Value: Retail- \$20/yrds Wholesale- \$15/yrds

Bf/ five yrds = 200/bf

manufacturing costs from cold deck = \$86/5 yrds (14/yrds)

Fiber Value= \$6 yrds retail Wholesale = \$1/yrds

(To Small of quantity to wholesale)

Stumpage to landowner 25%

Retail = \$2/yrds wholesale= \$0.25/yrds

Fiber value to company Retail = \$4/yrds wholesale = \$0.75/yrds

Fiber Value - Chips

Alder Chips

Value: Retail- \$25/yrds Wholesale- \$20/yrds

Bf/ five yrds = 200/bf

manufacturing costs from cold deck = \$86/5 yrds (14/yrds)

Fiber Value= \$11 yrds retail Wholesale = \$6/yrds

(To Small of quantity to wholesale)

Stumpage to landowner 25%

Retail = \$2.75/yrds wholesale= \$2/yrds

Fiber value to company Retail = \$8.25/yrds wholesale =\$ 4/yrds

Building the Markets

Currently the supply and markets are very small

The marketing is being done through local social media and word of mouth

To increase the marketability there needs to be multiple persons and entities that work together to make wholesale/retail options for the products

Harvey Logging is negotiating with San Juan Sanitation to be a retailer of the landscape chips

Company Goal

It is the goal of Harvey Logging to profitably remove timber fiber from the land using positive ecological, ethical, and sustainable methods

Completing projects in timely manner

Diversifying the timber stands to a more historical standard

THANK YOU

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