

## How to make top dollar with your woodlot



In this article we outline different ways of making money with your ready-to-harvest woodlot, and go into detail about the pros and cons of selling your logs whole versus sawing your own timber. We'll be using Macrocarpa (Monterey Cypress) as example species. (all prices are in New Zealand dollars)

### Introduction

Macrocarpa (Monterey Cypress) is a planted species in New Zealand, often used as farm shelter-belts. It's fairly light in color, medium density, and tolerant of wind and salt spray in coastal areas. Macrocarpa is durable (lasting) indoors, and the heartwood is resistant to borer. Outdoors, the heartwood will last above ground. Macrocarpa can be used both structurally and decoratively, and performs well with glues, oils, stains and paints.

In recent years this wood has become very popular to feature as live-edge furniture in bar tops, kitchens, and bbq areas. The features of Macrocarpa lend itself to being excellent timber for these uses, and it is in high demand around New Zealand. There are no restrictions on harvesting, it grows nice and big (wide), it's easy to saw, it has a beautiful light grain, it smells wonderful, and you don't need to treat it.



Rustic outdoor furniture and a finished kitchen counter made out of Macrocarpa timber

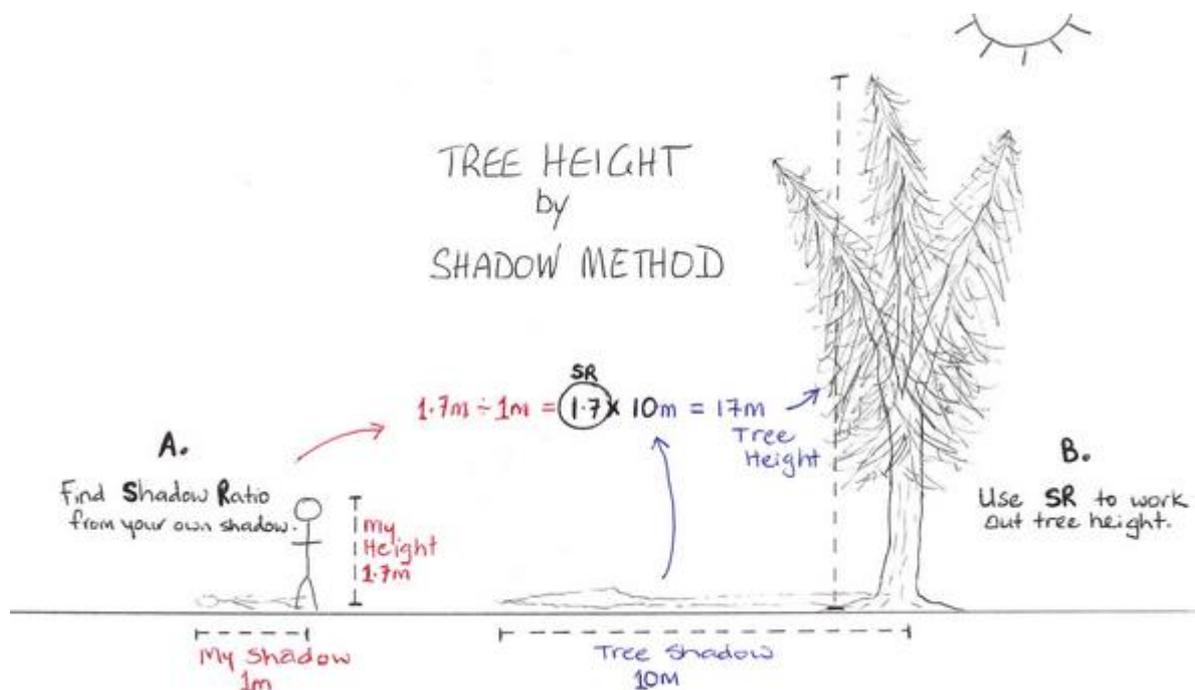
## The Logistics

### Growing

I'm assuming you're ready to harvest your trees. In case you wish to replant after harvesting, the Ministry for Primary Industries has written a great info sheet on planting and growth rates of Cypresses. You can find this PDF on their website ([nzffa.org.nz](http://nzffa.org.nz), search for: Growing Cypresses for timber)

### Whole-Log Sale Vs Sawing For Timber

The biggest decision is whether you are going to get your woodlot commercially logged and sell the logs whole, or use or sell your Macrocarpa in timber form. If you are reading this article, I assume you are not sure yet. So here's all the trucking and whole-log price info as well. And you need to know what a 'cube' and 'ton' are, to work out the pricing. So let's measure your tree stand first.

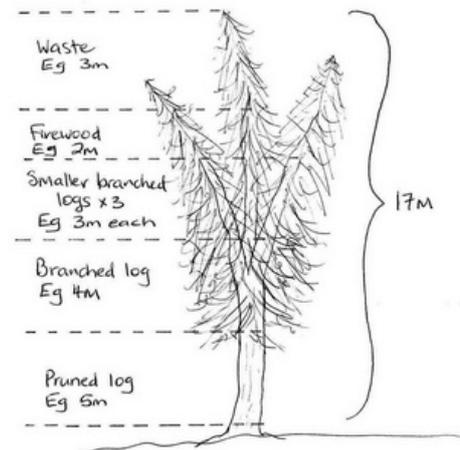


### Measuring Your Trees

1. If you have just a few trees, measure them all. But if you've got a woodlot, step out a sample area eg 100m x 100m; establish the most 'average' size trees and how many are within the area.
2. First, measure the circumference (girth) of several average trees in that woodlot. Measure around the trunk, about 1.4m up from the ground. Some smaller trees might be 1.4m around, and your biggest might be 2.2m around. So say your 'average' circumference is 1.8m around.

- Then work out the average height of those trees. A very simple way is the Shadow Method shown in this drawing. No matter what time of day it is, first measure your own height, and the length of your shadow, to work out the **Shadow Ratio**. Use the **SR** and multiply by the tree's shadow to get the tree's height. This tree is 17m tall according to it's shadow.
- Your biggest guesses will be trying to work out what percentage of the total tree is in the main stem log at the bottom (eg ¼?), then the medium branchy log above that (¼?) or any bigger branches off the main stem that are big enough to saw as smaller logs (¼?). So that would leave about ¼ of the remaining tree height as waste branches and limbs that are either firewood or the scrub pile.
- So for each different log size in the tree, use the formula **Length x (Circumference x Circumference) / 12.56**.
- If the tree gave you 5m of a nice big butt log of 1.8m circumference, plus 4m of a branchy log around 1.25m circumference, these are your totals:

	Formula	Cubic Metres
Pruned log	$5 \times (1.8 \times 1.8) / 12.56$	1.29
Branched log	$4 \times (1.25 \times 1.25) / 12.56$	0.5
Total usable log volume		1.79



## Cubic Volume To Weight

Convert your tree volume to weight in tonnage =  $1.79 \times 543\text{kg/m}^3$  (density for Macro) = 972kg or just under 1 ton per tree. Multiply by number of trees to get total tonnage.

## Felling & Logging

To hire a Logging Contractor to fell and process (cut to length, remove limbs, stack or load), costs vary from \$30 per ton for easy access, flat land, to \$50 per ton for steep/challenging sites.

*NOTE: Whoever you use to fell and process your trees, make sure there is an agreement on restoring any substantial soil or fencing damage, and how the waste will be dealt with (the branches and offcuts).*

## OPTION A: Selling Your Logs Whole

### *Trucking*

Again, prices vary depending on the area and distance from your trees to the buyer. Prices can vary from \$25 per ton for short 50km travel, to \$70 per ton for 200+km travel. Trucks will not usually take less than a full truck-and-trailer load (about 40-50 ton).

### *Whole Log Prices – Selling*

If you have chosen to sell whole-logs to a commercial mill, you can expect around \$115 per ton for 'sleeper' grade of logs with branches, up to around \$375/tonne for P1 grade of nice, uniformly pruned butt logs.

### *Commercially Harvested Returns*

Obviously, if you are in a remote area with unpruned trees on challenging terrain, you won't make any money selling in whole log form (Harvesting \$50 + Trucking \$70 = \$120 – Sleeper Grade sale price \$100 = \$20 loss!). It's well known that pulp grade is always sold at a loss, ie less than the cost of harvesting it.

At the best end of the scale, assuming you have all nice pruned trees on easy terrain, close to the mill, your costs could be Harvesting \$30 + Trucking \$25 = \$55 – P1 Grade sale price \$350 = \$295 return per ton. You had 1.29 cubic metres of butt log per tree x 543kg density = 700kg @ \$295 per ton = **\$185 return per tree.**

## OPTION B: Sawing Your Own Timber

### *Sawing*

If you hire a portable sawmill to come and saw your logs up on site, you can expect to pay \$220 – \$260 per cube of sawn timber, or \$300 – \$350 per cube log form for slabs. There's usually transport costs each day on site, and some contractors have a minimum \$500 day rate.

So if you've got 1.79m<sup>3</sup> in log form, and cutting dimensional boards, you can expect around 60-70% recovery rate = ie 1.79 x 65% = 1.16 cubic metres of sawn timber x \$240 per cube = \$280 for this tree (which probably isn't worth a contractor for 'just' these two logs, but works out well on a pile of logs to keep him busy for a full day at least).

### *Drying*

It's not recommended to kiln-dry Macro from green, because the cells collapse so much. The best method is to fillet-stack the timber between each layer, and let it dry

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naturally for several months at least. A piece of iron over the top layer is sufficient, with wind able to access all sides. It would take around 6 months for one inch of timber, up to 10 months for 2" timber to dry fully. If you want it dry faster, you can 'half-dry' it naturally, then a kiln can be used to finish off the drying process without too much cell damage. Of course air-drying is free, but kiln-drying is around \$80-\$120 per cube in Rotorua, New Zealand (2018 prices).

## Finishing

This means to plane or sand the timber, which will remove the sun-darkened exterior and show you a gorgeous golden-honey timber! Four-side planing or moulding usually costs around \$50-\$85 per cube in Rotorua (2018 prices).

Then you have a choice of oils, stains, or even 2-pot epoxy for beautiful wide slab tops.

## Sawn Timber – Selling

Green Macro in dimensional timber (2018 pricing) sells from around \$560 to \$1050 per cube for dried timber, and up to \$1700 for dressed decking, with dried slabs for anywhere up to \$2800 per cube.



Macrocarpa 150x25

Closes: 20 hours  
Wed 17 October, 11:39AM

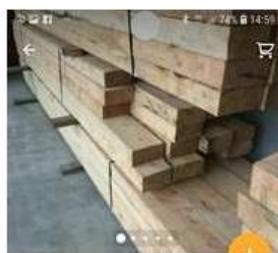
\$3.95

per item  
1 available

BUY NOW

Details

Condition



Macrocarpa sleepers

Closes: Wed 17 October, 6:48PM  
1 day 3 hours 48 minutes  
10 people added this to their Watchlist

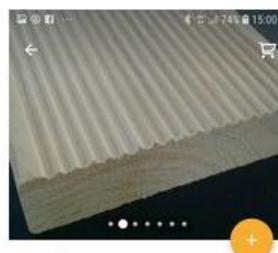
\$15.50

BUY NOW

\$15.50

Starting bid | No reserve

PLACE BID



Decking 140x35mm  
MACROCARPA

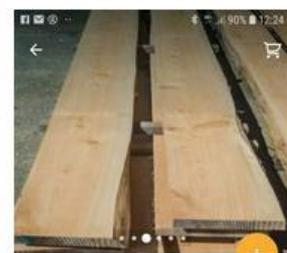
Closes: Sun 21 October, 9:17PM  
5 days 6 hours 17 minutes

\$8.35

per item  
1 available

BUY NOW

Details



Macrocarpa 50mm  
Slab

Closes: 18 hours  
Fri 19 October, 7:17AM  
10 people added this to their Watchlist

\$260.00

BUY NOW

\$200.00

Starting bid | No reserve

PLACE BID

## Self-Harvested Returns

It's fairly easy to work out that a little investment in 'how' you convert your standing Macrocarpa trees, can make a big difference to your returns.

So adding up the self-harvested costs; Logging average \$40 per ton/tree + Sawing \$280 per tree + Drying (free) + Planing \$125 = \$445 per tree cost, less sale price of (\$800 per cube x 1.16m<sup>3</sup> = \$928) = **\$483 return per tree**. This is double the return of commercially harvested logging.

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The cost of a Peterson Sawmill, Clip-on Slabber, Planer, and Sander Kit, is a very worth-while investment once you look at the potential returns on a decent-size Macrocarpa stand.

## Macrocarpa Furniture

The minute you spend a little extra time to make a piece of furniture, the equivalent sale price of the timber can shoot up to over \$3250 per cube! Here's a really basic table made from a solid slab, with two smaller solid pieces for the legs – retailing for \$650, and a couple other sets on TradeMe (the New Zealand version of eBay) in 2018.



### Rustic Slab Macrocarpa Table

Closes: Fri 19 October, 9:22PM  
3 days 6 hours 24 minutes

\$1,700

BUY NOW

\$1,700

Starting bid | No reserve

PLACE BID



### Macrocarpa Slab Coffee Table

Closes: Mon 22 October, 10:51AM  
5 days 19 hours 53 minutes

\$550.00

Starting bid | No reserve

PLACE BID

0 bids

No bid history



### solid macrocarpa table

Closes: Wed 17 October, 9:39PM  
1 day 6 hours 42 minutes  
7 people added this to their Watchlist

\$650.00

BUY NOW

\$650.00

Starting bid | No reserve

PLACE BID