



# GROWING CYPRESSES FOR TIMBER

## Some example regimes

Information Note **5**

This Information Note provides some examples of the different regimes growers are adopting around New Zealand to produce timber from cypresses. It reinforces the message that there is no single right way to grow cypresses, but there are some key elements of ‘best practice’ which growers need to understand when embarking on establishing a cypress crop.

If you want to see and learn more about some of the different options for growing cypresses, join your local branch of the NZ Farm Forestry Association. This will give you the chance to talk to experienced growers, visit different properties, and learn from others’ experiences.

### **GROWER 1 — LOCATION : UPPER NORTHLAND**

<b>Significant site features</b>	All sites.
<b>Species planted</b>	Cypress species.
<b>Target rotation length</b>	30-40yrs.
<b>Pre-planting preparation</b>	Pre-spray spots with glyphosate.
<b>Numbers planted stems per hectare (sph)</b>	2000
<b>Post-planting operations</b>	Single manual release 1st summer to slow down growth.
<b>Sail pruning</b>	None.
<b>Triggers/age for first pruning</b>	6yrs.
<b>Triggers/frequency of subsequent pruning</b>	1st prune, ringbark one of each co-dominant.
<b>Target pruned height</b>	2nd prune, ringbark diseased and poorly formed trees.
<b>Age at first thinning and target sph remaining</b>	3rd prune ringbark half of unpruned trees.
<b>Age at second thinning and target sph remaining</b>	Age 10-13, ringbark other unpruned trees to final stocking.
<b>Production thinning</b>	None.
<b>Other comments</b>	This regime avoids the problem of canker showing up in pruned trees and the high initial stocking gives excellent selection of crop trees. Ringbarking is a cost-effective way of thinning.

## GROWER 2 — LOCATION : BAY OF PLENTY

Significant site features	Fertile, light soils. Rolling to steep slopes, pine cut-over. North and south aspects planted.
Species planted	<i>Cupressus lusitanica</i> .
Target rotation length	35yrs +
Pre-planting preparation	None (planting on cut-over).
Numbers planted stems per hectare (sph)	1000
Post-planting operations	Oversprayed with Gardoprim.
Sail pruning	Yes, after wet summer & strong autumn winds.
Triggers/age for first pruning	4yrs. 1st lift, variable heights, pruned to 5-6cm calliper or ½ green crown. 650sph pruned.
Triggers/frequency of subsequent pruning	½ - ⅓ green crown left, variable lifts every 1.5-2yrs.
Target pruned height	6.5m by age 7-8yrs. North facing aspect tree growth superior.
Age at first thinning and target sph remaining	After final lift thin to 600spha.
Age at second thinning and target sph remaining	Age 10yrs. Thin to 350spha.
Production thinning	Too steep.
Other comments	–

## GROWER 3 — LOCATION : TAIHAPE

Significant site features	Sheltered, well-drained sites.
Species planted	<i>C. macrocarpa</i> or <i>lusitanica</i> .
Target rotation length	Set harvest date to match the number of trees; the longer the rotation, the less trees. 25yrs – 350sph. 45yrs – 200sph.
Pre-planting preparation	Site well-grazed; fences made stock-proof.
Numbers planted stems per hectare (sph)	On a good site 625sph (4m x 4m).
Post-planting operations	Oversprayed with Gardoprim.
Sail pruning	None, but ‘poodle prune’ (leave lowest branches to protect stem) if grazing early with sheep.
Triggers/age for first pruning	Prune 1m in height to every 25mm of stem diameter i.e. 4m ht to 100mm stem diameter. Remove any rogue branches above this height.
Triggers/frequency of subsequent pruning	Prune little and often, 1-1.5m per lift. Do not over-prune or stress trees.
Target pruned height	6.5m
Age at first thinning and target sph remaining	Thin as required to maintain maximum growth on crop trees. Aim to have as few trees as possible with maximum diameter at harvest.
Age at second thinning and target sph remaining	–
Production thinning	Maybe if possible.
Other comments	Macrocarpa and lusitanica still healthy in Taihape.

## GROWER 4 — LOCATION : BULLS, MANAWATU

<b>Significant site features</b>	Flats and low dunes of coastal sand country. Several sites. All cypresses require more fertility than radiata pine or monocalypt eucs.
<b>Species planted</b>	<i>C. macrocarpa</i> , <i>C. lusitanica</i> , <i>Ovensii</i> , <i>Leyland cypresses</i> .
<b>Target rotation length</b>	40yrs, but flexible.
<b>Pre-planting preparation</b>	No specific preparation. More recent plantings on cut-over.
<b>Numbers planted stems per hectare (sph)</b>	Varies, mostly 1,000-1,500.
<b>Post-planting operations</b>	Spray release with terbuthylazine (Gardoprim).
<b>Sail pruning</b>	Not usually.
<b>Triggers/age for first pruning</b>	Diameter. Try to prune at around 12-15cm trunk, 4-5yrs old. Prune to 8-12cm trunk, depends on taper of top trunk.
<b>Triggers/frequency of subsequent pruning</b>	When it gets up the priority list. Usually around 18mth intervals.
<b>Target pruned height</b>	6.5m
<b>Age at first thinning and target sph remaining</b>	Thin poor trees to waste after pruning finished, leaving perhaps 600sph.
<b>Age at second thinning and target sph remaining</b>	Progressively production thin from late teens down to 100-200 sph.
<b>Production thinning</b>	Definitely, very easy access sites. Respond very well to thinning.
<b>Other comments</b>	Windthrow of older trees can be a problem. Have one seedlot of <i>C. macrocarpa</i> that is very canker resistant. Some losses of <i>Ovensii</i> from drought after hot, dry Jan. 2015.



18-yr old *Cupressus macrocarpa*, South Canterbury.

## GROWER 5 — LOCATION : EAST WAIRARAPA

Significant site features	Ex-pasture, heavy clay, wet in winter. Cypresses planted in sheltered sites only.
Species planted	<i>Ovens cypress.</i>
Target rotation length	35yrs (trees a minimum of 65cm diameter at breast height).
Pre-planting preparation	Site well-grazed; fences made stock-proof.
Numbers planted stems per hectare (sph)	1100 (3m x 3m).
Post-planting operations	Release spray with residual and knock-down herbicide mix.
Sail pruning	Yes, in wetter microsites.
Triggers/age for first pruning	Age 4-5, stem diameter 12-15cm. Prune to 8-12cm diameter, variable height. Remove no more than 50% green crown.
Triggers/frequency of subsequent pruning	Large-diameter branches and enough green crown to carry out a lift of 1.5-2m. 3-4 lifts in total.
Target pruned height	6.5m
Age at first thinning and target sph remaining	Age 8; thin to 500-600sph.
Age at second thinning and target sph remaining	Age 10; thin to 350-400spha.
Production thinning	Unlikely except where access is easy.
Other comments	Macrocarpa on this property now infected with canker.

## GROWER 6 — LOCATION : CITY FORESTS, DUNEDIN, TOKOITI FOREST

Significant site features	Ex pasture sites, can be wet in the winter months. Sheltered sites only.
Species planted	<i>Cupressus macrocarpa.</i>
Target rotation length	35-40yrs.
Pre-planting preparation	Pasture ripped using D6 bulldozer.
Numbers planted stems per hectare (sph)	1600 (2.8m x 2.2m).
Post-planting operations	Release spray with residual and knock-down herbicide mix.
Sail pruning	None.
Triggers/age for first pruning	1st prune at 6yrs old. Prune height 3.0m
Triggers/frequency of subsequent pruning	2nd prune at 8yrs old. Prune height 5.5m
Target pruned height	Target height 5.5m
Age at first thinning and target sph remaining	Age 10; thin to 600spha.
Age at second thinning and target sph remaining	Age 14; thin to 350spha.
Production thinning	Yes, at age 25; thin to 275spha.
Other comments	—

Photos: John Milne.

**MORE INFORMATION** This information note is one of a series produced by the NZ Farm Forestry Association with funding from the MPI Sustainable Farming Fund. A series of videos is also available.  
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