SPECIFICATION 6 - P. RADIATA VARIABLE LIFT PRUNING

CONTRACT JOB SPECIFICATIONS
FOR
P. RADIATA VARIABLE LIFT PRUNING

Dated 8 March 2002

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<th>APPROVED</th>
<th>FORESTRY MANAGER</th>
<th>DATE:</th>
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Agreement made the _________________ day of _________________ 20 _____

BETWEEN

1 Pan Pac Forest Products Limited a duly incorporated company having its registered office at Napier (with its successors and assigns called “the Company”)

2 (“The Contractor”)

RECITALS

A The Company and the Contractor have entered into an Agreement relating to the appointment of an Independent Contractor dated

the _________________ day of _____________________ 20 _____

(“The Contract for Services”)

B The Company requires the Contractor to complete a particular class of work or works pursuant to the Contract for Services, the specific terms and conditions of which the parties now wish to record.
IT IS HEREBY AGREED AS FOLLOWS:

1 INTERPRETATION

1.1 In this Agreement, words and expressions used shall have the same meanings as ascribed thereto in the Contract for Services unless expressly varied herein.

1.2 “Contract for Services” means the Contract for Services referred to in Recital A including any additions, variations or amendments thereto.

1.3 “Job Specification” means the job specification(s) as detailed in this Agreement and shall include any Contract Note or Prescription relating to such Job Specification.

1.4 “Working Block” means the defined area of forest or forests.

1.5 “Stand” means a defined area of forest in which all trees were planted in the same year.

2 EFFECT OF THIS AGREEMENT

The provisions of this Agreement and any Contract Note issued pursuant to this Agreement shall form part of and shall be read with the Contract for Services and such provisions shall have the same force and effect as if they were set out in the Contract for Services so that a default under this Agreement or any Contract Note or Prescription issued pursuant to this Agreement shall be deemed to be also a default under the Contract for Services.

3 THE DETAILS OF THE JOB SPECIFICATION ARE AS FOLLOWS

PINUS RADIATA PRUNING

This Contract Job Specification applies to pruning operations in any working block allocated to the Contractor.
1. **INTRODUCTION**  
This Contract Job Specification covers work associated with variable lift pruning as a means of producing high quality knot free timber by removing all branches’ up to a specified stem diameter or height.

2. **OBJECTIVE**  
To document the correct procedure and method for selecting crop trees and removing branches according to the job prescription and stocking.

3. **ALLOCATION OF WORKING BLOCK**  
3.1 The Company shall from time to time during the continuance of this agreement allocate the Contractor a working block to be pruned with the associated Job Prescription, Contract note, appropriate associated FSC documentation (e.g. POAC) and stand map. The Contractor will thereafter proceed in a proper and professional manner with variable lift pruning.

4. **COMPANY'S RESPONSIBILITIES**  
4.1 The Company will supply to the Contractor, prior to the commencement of work, the following for each working block:
   a) A map showing the boundary of each area for variable lift pruning and restricted areas.
   b) A Job Prescription showing:
      i. safety requirements
      ii. estimate of pruned and total stocking
      iii. the prescribed pruned stocking
      iv. selection criteria
      v. quality criteria
      vi. any special instructions.
   c) A Contract note
   d) List of known physical hazards.
   e) Appropriate associated documentation (e.g. FSC requirements, POAC).
   f) Selection criteria field guide, for field use.

5. **DEFINITIONS**  
5.1 The DBH is the diameter at breast height, which is measured at 1.4m from the highest point at which the stem intersects the ground. If 1.4m is on a whorl the diameter will be measured in the internode above and below the whorl and then averaged to give the DBH. DBH will be measured with a diameter tape to the nearest millimetre.

5.2 The DOS is the diameter over stubs of the largest whorl removed in the current lift. DOS is to be measured with a diameter tape to the nearest millimetre.

5.3 Pruned height is the distance from the ground to the first remaining branch, epicormic or green needles above the last pruned whorl on the tree. This is to be measured (with a clearly marked pole) to the nearest 0.1 metre.

5.4 Stem diameter is measured by calliper or gauge set to the specified diameter and measured at the narrowest part of the internode.
5.5 A whorl is a group of three or more branches longer than 50cm, separated from any other whorl by at least 5cm up or down the stem.

5.6 An epicormic is a needle growth or shoot that may develop into small branches. All epicormics whether live or dead should be removed at time of pruning.

6. SELECTION CRITERIA FOR PRUNED TREES

Introduction

It is the Contractor’s responsibility to select as crop, the trees which have potential to be the most valuable at time of clearfell (usually age 30).

TREES ARE TO BE SELECTED FOR PRUNING IN THE FOLLOWING ORDER OF IMPORTANCE:

6.1 Previously Pruned Acceptable Trees
It is important to check that these trees still meet selection requirements.

6.2 Vigour
Dominant or co-dominant in diameter, height and health. Dominant trees should be selected, however, a smaller co-dominant tree of good form should be pruned in preference to a larger, badly malformed dominant tree.

Note: A tree should be judged by comparison with its neighbours, not with trees in other stands or parts of the same stand.

6.3 Form
Select straight, single-leaded trees where possible.

If it is not possible to achieve the prescribed stocking then an acceptable tree for pruning can have the following defects:

i) Butt sweep below 0.5m,
ii) Kink or wobble less than one diameter deviation of the stem.
iii) Lean of less than 5 degrees (this is equal to 10cm from the vertical line at 1.4m)
iv) A heavy lateral branch (less than 100mm).
A tree may also be pruned if it has a fork, kink, multi-leader or large branch and this defect occurs above 4.5 metres.

A branch which is greater than 100mm and occurs on the stem above 4.0 metres should not be pruned and should be treated as a defect.

**Tree Leaders**

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<th>b</th>
<th>c</th>
<th>d</th>
<th>e</th>
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<tr>
<td>Most Preferred</td>
<td>Least Preferred</td>
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<td>a. Single live leader - most desirable</td>
<td>d. Equally forked leader</td>
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<tr>
<td>b. Unequally vigorous forked leader</td>
<td>e. Multiformed leader</td>
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<tr>
<td>c. Single leader developed after death of original acceptable leader</td>
<td>f. Dead leader</td>
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**Acceptable and Non-acceptable Defects**

1. Butt sweep
   - < 0.5 m is acceptable
2. Wobble
   - > 1 diameter deviation is not acceptable
3. Kink
   - < 10cm at 1.4m is acceptable
4. Lean
   - < 0.5 m is acceptable

**6.4 Branching**

This is secondary to vigour, health and form. If two trees have similar vigour health and form then prune the tree with the smallest branches. Assess all branches above and below the prune height.

**6.5 Spacing**

This is secondary to all the above criteria.
7. **PRUNED HEIGHTS**
Trees shall only be pruned by the Contractor up to the **prescribed internode diameter**.

The Contractor will prune from every tree:
- All branches,
- Live or dead twigs,
- Live or dead epicormic growths and needles,
- Stem cones.

Branches must be cut flush with the branch collar. The branch collar must not be damaged by the Contractor.

8. **RESTRICTIONS**

8.1 Permanent sample plots and trial areas are **not to be pruned** or marked with paint unless specifically instructed by the Company. PSP’s and trials can be identified by posts or pegs, yellow paint or the signage #. **If in doubt ask first.**

8.2 All roads, tracks, watertables, fences and streams are to be kept free of pruning slash.

8.3 The Contractor must place all branches behind the first row of trees on road edges or fire breaks.

9. **PAYMENT DEDUCTIONS:**
The Company requires the Contractor to carry out formal quality checks to determine the quality of the pruning is to these Job Specifications, the contract note and the pruning prescription.

The Company will sample at least 1 plot per 2.5 hectares of the operation. The Contractor may witness such sampling. Pruning defects have been rated and given demerits points as follows:

1. Acceptable unpruned DEMERIT POINTS = 10
1. Reject selection DEMERIT POINTS = 10
2. Over pruning (> Gauge) DEMERIT POINTS = 7
2. Under pruning (< Gauge) DEMERIT POINTS = 7
2. Twigs/Branches/Cones DEMERIT POINTS = 7
3. Collar damage DEMERIT POINTS = 5
3. Branch Tear/Branch Stubs DEMERIT POINTS = 5
3. Stem Damage DEMERIT POINTS = 5
3. Coathangers DEMERIT POINTS = 5
3. Feathering DEMERIT POINTS = 5
3. Epicormics/Needles DEMERIT POINTS = 5

If more than one fault occurs on a tree than the maximum number of demerit points for that tree is equal to the single highest fault. In other words, if a tree has one or many of the same fault, for example, epicormics, the demerit points are a total of 5. Furthermore, if a tree has one or many multiple faults, for example 1 branch, 3 epicormics and is a reject selection, the demerit points are 10 (Reject selection is the single highest fault).
If the total demerit points equal 20, then the Contractor may receive written advice from the Company to rework the area before payment is made.
The Company will determine the size of the rework area. The size of the rework area will reflect the number of plots i.e. 2 plots per 5 hectares.

The Company may charge the Contractor for the cost of replotting the area. The Contractor will be advised in writing before this deduction from payment is made.

The Company shall have the right to stand down the Contractor and cancel the contract if demerits continue or damage to pruned crop becomes excessive.

Lastly, the Company may withhold payment if the appropriate documentation related to the prescription (e.g. FSC documentation, payment requests) are not provided prior to the mark up dates specified for Forestry Contractor Payments.

10. **SAFETY**

All operations must be carried out by the Contractor in accordance with the Health and Safety in Employment Act 1992 and the Regulations 1995.

It is the responsibility of the Contractor to ensure the operation is carried out in a safe manner. The Contractor shall discontinue the operation if it is felt operation conditions are unsafe. All operators must have appropriate safety equipment. The minimum safety gear for pruning is:

- a) Hi vis hard hat
- b) Grade 4 ear protection (chainsaw operators)
- c) Hi vis vest
- d) Safety chaps (chainsaw operators)
- e) Steel cap boots
- f) 2 large wound dressings (chainsaw operators)
- g) Safety belt and harness (to be used if working off top of ladder or steps at a height above 3 metres).

It is the responsibility of the Contractor to ensure that all workers must hold, or be under recognised training for the modules listed:

1.01 General Requirements (Unit Standard 17769)
2.04 Silvicultural Pruning (Unit Standards 1243, 1244, 1245, 1246, 6949, 6951)
2.08 Chainsaw Pruning if applicable (Unit Standards 6973, 6972, 7572).

10.1 **Reporting of Accidents**

The Contractor must report to the Napier Office, any accident as soon as practicable after the occurrence or at least within 24 hours of the accident. Near misses resulting from exposure to significant hazards must be reported by the Contractor to the Napier Office within 48 hours.

10.2 **Pruning at heights above 3m**

When working off the top of a ladder, or steps at a height above 3 metres and where there is no adequate side support, a safety belt, harness or other fall restraint device (meeting NZS 5811) is required to be used.
10.3 **Approved safety gear**
The Contractor must ensure that all employees wear the following:
- Steel cap boots
- Hi vis hard hat
- Hi vis vest
- Safety belt and harness (if working at the top of the ladder or platform over 3 metres off ground)

10.4 Chainsaw operators must comply with Pan Pac Forest Products “Chainsaw Pruning Performance Standard” and the Pan Pac Forest Products Forests Operation Handbook.

10.5 Ladders are to be checked by the Contractor for damage, missing or loose nuts and bolts daily. If a fault is found it is to be put right before further use.

10.6 All hand tools should be pouched when climbing or descending ladders and when walking between trees. **Do not hang tools on ladder.**

10.7 No employee of the Contractor is to be out of shouting distance from his or her immediate workmate.

**IN WITNESS WHEREOF** these parties have executed this Job Specification

**P. Radiata Variable Lift Pruning**

on the day and in the year written above.

**SIGNED for and on behalf of:**

**PAN PAC FOREST PRODUCTS LIMITED**

**BY**

_________________________________________________________________

**EXECUTED by the Contractor**

in the presence of:

_________________________________________________________________

Witness Name

_________________________________________________________________

Witness’ Occupation

_________________________________________________________________

Witness’ Address