

SPECIFICATION 21
CONTRACT JOB SPECIFICATIONS

**JOB SPECIFICATION
FOR**

AERIAL SPRAYING

Dated February 2010

APPROVED	FORESTRY MANAGER	DATE:
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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

AERIAL SPRAYING

1. OBJECTIVE

The objective is to apply herbicide by air to control weed growth in Pan Pac owned and managed land before or after planting in new land or cutover sites, while being applied in a safe and effective manner with minimal impact on the environment.

2. ALLOCATION OF WORKING BLOCK

- 2.1 The Company from time to time during the continuance of this agreement will allocate to the Contractor a Working Block to be sprayed. The Contractor will thereafter proceed in a proper and workmanlike manner using best practice techniques with the spraying operation.
- 2.2 At any time changes or a new prescription may be administered to a block by the company.

3 COMPANY'S RESPONSIBILITIES

- 3.1 The Company will supply to the Contractor the following for each Working Block to be sprayed:
 - i) A map showing the boundary, access points, restrictions/sensitive boundaries of the stand
 - ii) A Job Prescription
 - iii) A Contract Note
 - iv) POAC sheet for FSC requirements
 - v) Pre-Operation Physical Hazard Identification sheet
 - vi) Daily Record sheet
 - vii) Safety Data Sheet (SDS) for herbicides being used
 - viii) Information on Beaufort Scale

4. SITE SELECTION AND ENVIRONMENTAL REQUIREMENTS

The operation must meet Pan Pac Environmental Rules & Guidelines, particularly the *Agrichemical Application* section. Following are key requirements:

- 4.1 Undertake work in suitable weather conditions as specified in Job Prescription. Monitor conditions regularly to meet operational compliance.
- 4.2 Locate mixing/helicopter landing sites to minimise adverse effects on streams, reserves, neighbours, restricted sites, non-target vegetation and any sites specific hazards.
- 4.3 Do not spray:
 - a) Within 20 horizontal metres of a stream with a width > 3m or specified in the map.
 - b) Within 5 horizontal metres of permanent streams with a width <3m, unless avoidable.
 - c) Within 15m horizontal distance of rivers specified in the map.
 - d) Any other water e.g. water tables, unless unavoidable.
 - e) Riparian margins, unless unavoidable.
 - f) Within 20 horizontal metres of wetlands or lakes > 0.5ha
 - g) Neighbour's properties
 - h) Over buildings, people or property
- 4.4 With respect to the Resource Management Act the Contractor must ensure the following:
 - i) No herbicide enters or may enter a waterway.
 - ii) No spray drift may affect a non-target area.

iii) No rubbish, including work related and household rubbish is left at the working block.

4.5 Contain agrichemical spills and notify a Co-ordinator. Spill containment procedure is as follows:

- a) A spill kit shall be carried whenever the contractor is transporting or using herbicides. If greater than 20kg or 20 litres of concentrated herbicide of any type is being carried, then a minimum of a 50 litre Spill Kit must also be carried by the Contractor. A Spill Kit will contain absorbent material, shovel or spade and strong plastic bags with ties.
- b) The Spill Kit is to be used by the Contractor on all spills of herbicide on public roads or on any significant spills anywhere. The Spill Kit material is to be spread so as it covers the entire spill area and, once the spill has been absorbed, it must be scraped up together with any contaminated soil and placed back in the plastic bag. The used material will be disposed of in an approved manner. In the event of a spill in excess of 5 litres or 5kg in a confined area the Contractor must notify the Co-ordinator immediately. Any spill is to be notified to the Co-ordinator immediately by the Contractor.
- c) All spray residues, whether from triple rinsing, the cleaning of spray equipments, left over herbicide or herbicide from blowouts must be sprayed onto the block by the Contractor in a way so as not to adversely affect the crop or non-target areas.

4.2 The Company will deliver herbicide to the site unless otherwise arranged

4.3 The Company will supply to the Contractor a job prescription stating the herbicide mixing rates and water rates to be used for each Working Block.

4.4 The Company will be responsible for ensuring an adequate clean water supply is available to the Contractor at the spray site.

4.5 The Company will provide Material Safety Data Sheets to the Contractor for each herbicide being used, at the start of each season.

4.6 The Company has the right to stop any operation for any reason if thought necessary and it may be in consultation with the Contractor.

4.7 Will provide a Daily Weather form and Herbicide Balance sheet for the contractor to complete for each working block.

4.8 Herbicide will be supplied as per prescription.

5. CONTRACTOR RESPONSIBILITIES

5.1 It is the responsibility of the Aerial Spraying Contractor to ensure that they comply with this Contract Job Specification.

5.2 The Contractor will arrive on the block with the correct equipment, correctly calibrated.

5.3 The Contractor or a senior crew member must do the mixing of chemical. Both must hold an Growsafe Certificate.

5.4 The pilot shall have a current National Certificate in Agrichemical Application (Aerial) and hold or be under training for a pilots chemical rating issued by Civil Aviation.

- 5.5** The Contractor will arrive on site with the correct equipment. This needs to be clean and decontaminated, correctly calibrated, with no herbicide residues and in good working order.
- 5.6** Nozzles shall be of the highest quality. An output check shall be conducted at the commencement of each spray season to ensure the output of each nozzle is within specifications. The Contractor shall ensure that the choice and arrangement of nozzles provide a VMD greater than or equal to 464 microns (volume medium diameter) as recommended by the British Crop Protection council and replace nozzles as necessary. The specified VMD may be achieved with the use of D6 or D8 raindrop nozzles pointing straight backwards.
- 5.7** The Contractor will supply to Pan Pac staff, after each days spraying, a full spray diary (herbicide usage) and weather conditions assessed at the start and end of each block and every half hour. When spraying near restricted areas and sensitive boundaries weather shall be assessed every 15 minutes.
- 5.8** The Contractor will supply a completed POAC for each stand.
- 5.9** The Contractor will ensure there is ground to air communications available at all times.
- 5.10** The Contractor will use a G.P.S. tracking system, when requested.

6. METHOD OF APPLICATION

- 6.1** The Contractor will ensure when using the single pass technique that there is sufficient overlap to avoid striping and achieve the required post operation quality. However a half overlap may be requested on heavier vegetation.
- 6.2** The distance between the outside operating nozzles is to be no greater than 80% of the rotor diameter.
- 6.3** Flying height will be up to 10 metres above ground or canopy height, safety permitting.
- 6.4** The water rate to be used by the Contractor will be a minimum of 100 litres per hectare. The exception to this will be where dense vegetation is being sprayed and a higher rate may be required.

7. WEATHER CONDITIONS

The Company will be responsible for checking weather conditions prior to the Contractor arriving at the block. In consultation with the Company, the Contractor will ensure spraying is carried out within the following parameters:

- Relative humidity >40%
- Wind speed < 10 kilometres per hour
- Temperature < 20°C
- Fog / inversions nil fog and inversion layers

8. HERBICIDE MIXING PROCEDURE

- 8.1** Where any job requires more than four loads, herbicides must be mixed by the Contractor in a mixing tank prior to loading into the helicopter spray tank. Otherwise, if less than 20 ha herbicides may if liquid, be poured directly into the helicopter belly tank or if powder or granules - mixed into a slurry and poured into the belly tank.
- 8.2** To mix the herbicide the mixing tank should be half filled with water and then the concentrated herbicide can be added with agitation, then the tank is filled with water. Powder or granule herbicides may need to be mixed into a slurry prior to being poured into the mixing tank.
- 8.2** If weather conditions are marginal, only one helicopter load should be mixed in the mixing tank at any one time so no herbicide mix is left overnight.
- 8.3** Helicopter tanks should be bottom filling with internal baffles or a well designed internal dispersal line to reduce foaming. The filling pump should be operated on low rev's while recirculating and while filling the helicopter belly tank not operated at such a high speed as to cause excessive foaming.

9. LOADING SITES

- 9.1** Helipads will be identified by the Company, prior to the operation commencing. The Contractor may choose to use a different pad, should they consider the identified pad unsafe to use.
- 9.2** Loading sites shall not be located near watercourses or sensitive areas where there is a potential risk of herbicide entering the watercourse, unless this is unavoidable and steps should be taken by the Contractor to ensure that any spillage will be contained within the loading area until cleanup can be carried out (eg bunding with soil). Refer to the Environmental Guidelines.
- 9.3** Helipads should be free of loose debris and light empty containers. Where there is a dust or sand nuisance, the helipad may need to be hosed down by the Contractor.

10. SAFETY

- 10.1** Handling of herbicides will be carried out by the Contractor in accordance with the NZS 8409:1999. Code of Practice for the Management of Agrichemicals.

- 10.2** Safety equipment to be supplied by the Contractor:
- Fire extinguisher, first aid kit
 - Ground crew shall wear chemical resistant gloves, steelcap gumboots, PVC apron and leggings, overalls and face protection as outlined in the NZS 8409:1999. Code of Practice for the Management of Agrichemicals.
- 10.3** Washing Facilities including soap, towel and clean water (at least 20 litres and labelled as such) **MUST** be made available by the Contractor at all times. Operators and loaders shall wash hands and face before eating, drinking and smoking.

11. SPILL KITS

- 11.1** A spill kit 50L in size and as dictated in the Pan Pac Environmental Guidelines, will be carried by the Contractor, including bags and ties to cleanup any spill.
- 11.2** The spill kit is to be used by the Contractor on all spills of herbicides on public roads or any spills anywhere where the herbicide may enter the water table. The absorbent material is to be spread so it covers the entire spill area and then, once the spill has been absorbed, scraped up and bagged. This material is to be labelled by the Contractor with herbicide type and whether it is a mix or concentrate and given to the Company.
- 11.3** Ensure you are familiar with the environmental incident procedure in the Pan Pac Environmental Guidelines.

12. FLUSHING PROCEDURE

- 12.1** The priming of nozzles or the checking of their function should be carried out over the block if spray is used or if only water is used the helipad may be used.
- 12.2** At the completion of a spray operation the residue in the mixing unit must be flushed with water, emptied into the helicopter's belly tank and sprayed out over the block by the Contractor. Consideration must be given to wind effects on sensitive boundaries and restrictions when spraying this residue as this may be when spraying has ceased because of weather conditions.

13. LEGISLATION AND REGULATIONS

The Contractor shall comply with the following Acts and Regulations and Guidelines:

- Civil Aviation Regulation 1953 & Civil Aviation Regulation Part 61
- Resource Management Act
- Health and Safety in Employment Act
- Forest and Rural Fires Act and Regulations
- OSH Safety Codes
- Code of Practice for the Management of Agrichemicals NZS 8409:1999.
- Pan Pac Forest Operations Handbook and Environmental Guidelines
- Local bylaws and plans.

14. PAYMENT

- 14.1** Payment will be made at the negotiated rate as agreed between the company and the contractor given the details below.
- 14.2** Unsatisfactory work will be reworked at the expense of the Contractor and the extra herbicide used may also be charged to the contractor.
- 14.3** A percentage of payment may be withheld until the operation is completed to a satisfactory standard. The inspection of the job will involve assessing the block after the vegetation has started to die back and will look for missed areas or strips and kill rate as expected by the prescription application rate.
- 14.4** Payment may be after a receipt of an invoice or with the use of a contract note.

IN WITNESS WHEREOF these parties have executed this Job Specification

Aerial Spraying

on the day and in the year written above.

SIGNED for and on behalf of:]
PAN PAC FOREST PRODUCTS LTD]
BY

EXECUTED by the Contractor]
in the presence of:]

_____ **Witness Name**

_____ **Witness' Occupation**

_____ **Witness' Address**