

SPECIFICATION 9 – WEED CONTROL HAND RELEASE HERBICIDE

CONTRACT JOB SPECIFICATIONS FOR WEED CONTROL HAND RELEASE - HERBICIDE

Dated October 2009

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

WEED CONTROL HAND RELEASE SPRAY

1. OBJECTIVE

The objective of hand release spraying is to apply herbicide safely and efficiently so as to minimise weed competition to the planted trees with minimal impact on the environment.

2. ALLOCATION OF WORKING BLOCK

2.1 The Company will from time to time during the continuance of this agreement allocate to the Contractor a working block to be sprayed. The Contractor will thereafter proceed in a proper and workmanlike manner with the Hand Release Spray 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 the Contractor the following for each working block to be operated:

- 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 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) Priming of spray system is to be carried out by the Contractor in such a way so that the spray mix is returned to the pack.
- d) 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.

5. EQUIPMENT

The type of equipment the Contractor proposes to use shall be inspected and approved by the Company in advance of releasing commencing.

Any equipment not meeting the standards of the Company may not be used by the Contractor until such time as the problem is remedied.

Required equipments are listed below:

- a) Knapsack sprayers
- b) Nozzles
- c) Measuring tumbler
- d) Measuring pole
- e) Measuring funnel, cylinder and jug
- f) Spill kit (see section 5.5)

5.1 Clothing and other protective equipment

- a) For spraying, the following must be worn:
 - Overalls or long sleeved shirt (sleeves not rolled up) and long trousers or shorts.
 - Gloves (rubber or PVC).
 - PVC/Rubber steel capped boots (spikes recommended).
 - Waterproof legging (PVC type) - worn over boots.
 - Long sleeve shirt or overalls (sleeves must not be rolled up).
 - PVC cape that protect operator from any potential knapsack leaks.
- b) For mixing, the following must be worn:
 - Face shield or safety glasses, plus a dust mask when using powdered herbicides.

- Overalls - clean at the start of the day.
 - Gauntlet type gloves made of PVC or neoprene.
 - PVC/Rubber steel capped boots.
 - Waterproof leggings worn over boots.
- c) For granule application, the following must be worn:
- Waterproof leggings worn over boots.
 - Rubber steel capped boots, (spikes recommended),
- d) For decanting granules from factory bags into other containers, the following must be worn:
- Dust mask,
 - Eye and face protection,
 - PVC or rubber gloves,
 - Waterproof leggings,
 - Rubber steel capped boots.
- e) It is the Contractor's responsibility to ensure that all protective clothing is in good condition, cleaned regularly and replace any worn clothing.
Note: Clothing worn when spraying should be washed separately from other clothes.
- f) Protective clothing used for spraying shall not be used for alternative work by the Contractor unless washed thoroughly and separately from other clothes. Foot wear is the only exception but shall be washed.
- g) All operators shall carry a change of clothes in case of a spill or to wear when doing alternative work.

5.2 Spray System

- a) The spray system shall be one that can deliver an accurate metered dose as specified in the Job Prescription. A pressurised backpack with a metering gun is preferred.
- b) The nozzle shall be specified in the prescription for that working block. Nozzles shall be new at the start of the spray season and replaced if the pattern is not to Company requirements.
- c) Spray system must not leak at any time. It is recommended they be cleaned daily and worn parts replaced immediately by the Contractor.
- d) The spray system shall be calibrated by the Contractor before and at regular intervals during the operation to ensure correct volume and spray patterns are delivered.

5.3 Granule Application

- a) The granule applicator used by the Contractor shall be one that can be calibrated to deliver a dose as specified in the Job Prescription.
- b) The trigger size and the cone spreader to be used by the Contractor shall be specified in the prescription for that working block.
- c) The applicator is to be in good condition and not spill granules at any time.
- d) The applicator should be cleaned daily and any worn parts, (e.g. trigger return spring), shall be replaced immediately by the Contractor.

- e) A measuring rod to enable a constant trigger height, (above the ground), shall be fitted securely and used at all times.

6. METHOD

The Contractor shall ensure that the method of applying herbicide and rates of application is conducted according to the Job Prescription specific to that working block.

For all Hand Release Spray Operations the Contractor shall comply with the following:

6.1 Water

The Contractor shall arrange for the delivery of suitable clean water to the working block. Water shall be sourced from a Company approved water point. Old herbicide containers used for water shall have labels removed by the Contractor and will be used for the full spray season where ever possible. This allows for more containers to be recycled.

6.2 Herbicide Supply

The Company shall supply all herbicides to the Contractor. The Contractor shall arrange for the delivery of the necessary quantities of herbicide for one or two working days of operation to the working block. The security of herbicide shall become the Contractor's responsibility once it is collected by or delivered to the Contractor. It shall be stored in a secured location away from public access, vegetation, and water sources.

6.3.1 Mixing - Liquids

- a) Senior crew member must carry out mixing, in accordance with the rates of mix specified in the Prescription, information on container labels and all information on the Safety Data Sheet for the herbicide being used. The mixer must comply with the mixing site requirements stated in 4.2 and in Pan Pac's Environmental Rules and Guidelines.
- b) The type of herbicide, quantity and method of mixing for the Hand Release Spray operation shall be specified by the Company in the Prescription for that working block.
- c) The mixing of herbicide at the end of the day or in marginal conditions shall be done by the Contractor in such a way so as to minimise the amount of mixed herbicide that has to be carried over to the next day. Many herbicide mixes cannot be carried from day to day and some often settle and require **considerable** agitation to get back into suspension. Unused mixes must be secured by the Contractor at the end of the day and not left in spray equipment.
- d) When granules or wettable powder are part of the mix the Contractor shall ensure this is agitated well before adding balance of water.
- e) To mix the herbicide the mixing tank or container 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 slurry prior to being poured into the mixing tank.
- f) Spray marker dye and wetting agent (if required) should be added after all other mixing has been completed. After these products have been added the mix requires only gently agitation.
- g) The mixer must have sufficient empty spare containers in good condition available on site to replace any damaged or leaking full herbicide containers.

- h) The Contractor shall ensure that ties are on site to seal any bags containing herbicide powders or granules.
- i) It is recommended that a funnel, a 100ml-measuring cylinder and a two or four litre jug be used by the Contractor for mixing procedures. When mixing granules or powder ensure that a separate dry measuring jug is used. A funnel with a hose that goes to within 20mm of the bottom of the mixing container will help reduce foaming.

6.3.2 Granule application preparation

- a) Operators decanting granules from factory bags into other containers must wear a dust mask and eye and face protection.
- b) The Contractor shall ensure that ties are on site to seal any bags containing herbicide powders or granules.

6.4 Working the Block

- a) All Hand Release - Herbicide operators shall follow the planted lines.
- b) The appropriate quantity of spray marker dye must be added by the Contractor to the tank / pack mix to enable a visible pattern.
- c) At the end of each day's application, the Contractor shall clearly mark the last line sprayed with maker paint.
- d) Exposed areas should be treated by the Contractor when wind is low, this allows for more sheltered areas to be treated in marginal conditions.

6.5 Blow Outs (too windy) and Rainfall

- a) Applying herbicides in windy conditions is not permitted for two reasons:
 - i) The users are likely to be contaminated by spray or granule dust drift,
 - ii) The quality of the job will be reduced.

Hand Release Spraying is restricted to wind strengths of **15km per hour** or less (measured at 1.4m above ground level) at the spraying site. Granules are generally more sensitive to wind and operations may have to stop at below this wind speed. If in doubt about either method, ask your Co-ordinator.

- b) The acceptable level of rainfall is dependant on herbicide type. Refer to Herbicide label for rainfall restrictions, unless limits are on the Prescription for that working block.

6.6 Herbicide Container Returns

- a) No herbicide containers shall be left by the Contractor in the area of the spray operation at the end of the day. All containers must be returned by the Contractor to the point of original collection at the end of the operation.
- b) All cardboard containers and plastic bag liners may be returned to Forest Co-ordinator for disposal.
- c) Plastic containers must be triple rinsed, caps cleaned and replaced and returned to the point of collection by the Contractor. Care must be taken not to damage the container. Do not damage or remove the label. Containers are not to be contaminated with any other herbicide or spray paint

- d) All containers 20 litres and larger are recyclable. They should be plugged and returned to the point of collection by the Contractor.
- e) The Company will dispose of plastic containers.

6.7 Triple Rinsing

When the container is empty the Contractor shall place several litres of water into the bottom, agitate, tip residue into the appropriate container and repeat two more times. This residue should be used to make up another mix.

7. RECORD OF WORK

The Contractor shall keep an accurate written record of area worked and the hours worked for each working block.

The Contractor must complete a Daily Record Sheet detailing date, area treated, type and volume of herbicide used. Area treated by day shall be marked up on the map provided by the Company.

All records is to be reconciled with the herbicide balance by the Contractor to ensure application rate is correct and **shall** be supplied to the Co-ordinator.

8. QUALITY CONTROL

- 8.1 The Company requires the Contractor to carry out Quality Assessment (quality checks by contractor) to make sure that they meet Job Specifications and Prescription. The data must be supplied to the Company for payment.
- 8.2 The Contractors shall regularly audit the technique and quality of each crew member and carry out any necessary training to improve their quality. Written records of these audits and any training must be kept and be available for the Company to review.
- 8.3 A POAC must be completed by the Contractor and submitted to the Co-ordinator by the end of the monthly measure-up.
- 8.4 The Company shall carry out an inspection of the working block. A random sample of the block will be made to assess the quality of the work approximately **six weeks** after the completion of the operation.

Quality shall be assessed on the following criteria:

- a) Missed tree
- b) Incorrect size of spot
- c) Incorrect location of spot
- d) Irregular shape of spot due to e.g. damaged nozzles needing replacing or standing in the spot area when spraying.
- e) Any damage or evidence of spills in the block and at the mixing sites.

If any trees are missed or it is considered that there are a significant proportion of trees that have not been treated correctly then the Contractor may be required to rework the block. The total cost of a rework, including the herbicide, may be at the cost of the Contractor.

9. SAFETY

All operations must be carried out in accordance with Forest Operation Handbook (Pan Pac Forest Products Ltd) and OSH Approved Code of Practice for Safety and Health in Forest Operations. 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 operating conditions are unsafe.

All known physical hazards for each stand will be listed in the Pre-Operational Physical Hazard Identification sheet by the Co-ordinator. Following consultation with the Contractor, the Contractor shall convey operational and physical hazards to their employees.

The Contractor shall have NZS 8409: 2004 Code of Practice for the Management of Agrichemicals and the Safety Data Sheets for all herbicides being used on the job at all times and all employees shall know the location of them.

9.1 Herbicide Label

The Contractor or any of their employees using the herbicides shall read and / or show an understanding of the herbicide label.

9.2 Food and Water Containers

Under no circumstances are food and drink containers to be used by the Contractor for measuring or storing herbicides. Herbicide containers are not to be used for drinking or personal washing water. Drinking and washing water containers are to be clearly labelled by the Contractor and are not to be stored together.

9.3 First Aid Equipment

For all Hand Release - Herbicide operations the FIRST AID KIT must have an eye wash bottle with significant clean water or saline.

9.4 Cleaning

- a) Soap, towels and clean water (not water used for spraying) MUST be made available by the Contractor at all times. Operators shall wash hands and face before eating, drinking, smoking and at the end of the work. There shall be no drinking or smoking at the mixing site, or where herbicide is being stored.
- b) It is recommended that those people who clean the spray system wear neoprene gloves.
- c) Protective clothing shall be checked after each days use.

9.5 General

- a) If you have any doubts about the correct procedures for handling herbicides or the safety of an operation ask your Co-ordinator for help and make sure you get it.
- b) The Company views safe herbicide handling and use as an essential part of all releasing operations.
- c) The Contractor is to encourage and allow time for all workers to achieve the releasing spray module, as this is an integral part of the operation.

10. QUALIFICATIONS AND TRAINING

Hand release spraying operations requires a current Growsafe Introductory Course or FIRS module 2.3 including unit standards 1236, 1237, and 1239. Supervisors/mixers must hold an Applied Growsafe Certificate.

11. PAYMENT

- 11.1 Payment shall be made on the area completed by the Contractor at the rate agreed upon in the Contract note, less 10%. The 10% withheld will be paid when the Company is satisfied the work has been carried out to the Job Specification and Prescription requirements.
- 11.2 Payment is made once a month, with the company providing buyer created invoices to the Contractor, after receipt from the contractor of Daily Record Sheet and a completed POAC.
- 11.3 If excessive quantities of herbicide are used for the working block, the Contractor may be charged for the herbicide by the Company.

IN WITNESS WHEREOF these parties have executed this Job Specification

Weed Control Hand Release - Herbicides

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**