forestgrowers levy trust inc

FICA FOREST INDUSTRY CONTRACTORS ASSOCIATION

BlackburneGroup CHARTERED ACCOUNTANTS

Business Management for Logging

3rd Edition 2020

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INTRODUCTION

11 years on from the last Business Management for Logging (BMOL) and with a rapidly changing business and industry environment it is necessary to review and update both the content and presentation of the BMOL to make it more relevant to current industry needs.

Accordingly this 3rd edition of the BMOL is now presented in an on-line format. This will make it more accessible to users and also, importantly, able to be more rapidly updated to reflect changing circumstances and needs.

While some things change good basic principles do not and it is relevant to highlight the original principles behind the BMOL, namely:

"To maintain productivity, financial health and goodwill in the industry, all parties involved in setting contract rates should be willing to arrive at a fair rate and have the understanding and knowledge to do so."

The premise behind this being that if parties to a rate setting process do not understand and apply these fundamental principles correctly then mistakes arise with potential for detrimental consequences to all parties involved. Or in layman's terms "if you don't know what you are aiming at you can't hit it"!.

While this costing process provides the foundation for a successful contracting business, built upon that foundation are other skill sets and knowledge required. Living up to its "Business" title BMOL covers a range of other business skill sets. In particular greater attention is now provided to financial management processes and the tools now more widely available to assist.

On the other side of the equation, with the passing of time and development of other resources it is recognised that Health and Safety/Environmental issues while essential technical skills are more appropriately addressed separately through the many resources available. Recognising these separate specialist areas those chapters have now been focused on directing readers to more appropriate resource areas.

I wish to acknowledge the support provided to this publication by Forest Growers Levy Trust for their assistance with funding and Forest Growers Research in providing rights to the intellectual property to Forest Industry Contractors Association (FICA) so as to facilitate both the online hosting of the BMOL and also enable future updates.

Also and in particular the support and input provided by FICA CEO, Prue Younger, and the team at Blackburne group, in particular Sonya Elmiger and Craig Munro.

I welcome feedback from readers so we can continue to update the BMOL thereby keeping it topical to industry needs as circumstances change.

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CONTENTS

OVERVIEW

Set out below is a brief description of the contents and purpose of each chapter. The intention being to take the reader through a logical process of building up a practical understanding of their operation from costing/production issues through to other critical management issues upon which the industry is based, namely financial reporting, labour and machinery issues.

Clicking on the italicised green headings will take you directly to the relevant chapter.

Key supporting documents have been provided as downloadable links at the beginning of each chapter where relevant.

When you click these links, you will be prompted to save these files on your computer or will be asked where you would like to save these files. It is suggested that you use a working folder to keep all of these files in one place.

Remember to save your work often to make sure that your work is captured in the document. Save your work prior to exiting the document.

Chapter 1 – *Costing Principles*

Costing of the logging operation remains the basic tool for understanding inputs. This chapter provides a clear outline of the principles underlying costing, together with worked examples. A section on indexation has been included.

The purpose of this chapter is to establish a total cost per work day which can then be linked with daily production to derive a logging rate. The chapter explains how to bring all contract activities back to the standard Time unit -- the work day. Costing templates, both electronic and manual, are provided so that readers may apply these principles to their specific circumstances.

Chapter 2 – *Production Management*

This is the other critical half of rate setting, which is often overlooked as emphasis is put on the actual costings. But one without the other is pointless, a bit like having a RWC without the All Blacks.

This chapter will improve understanding of the factors that influence production so that contractors and Forest Owners can both improve production and collect and interpret information which will help in future contract negotiations. Issues associated with production monitoring will be reviewed and some templates provided to assist.

Chapter 3 – *Financial Management*

All the costing, production and systems in the world will not help a contractor remain viable for the long-term if sound financial management and reporting are not in place. The section is not intended to make you into an accountant. It is designed to provide a practical overview of relevant issues including:

- Record-keeping.
- Reporting systems.

- Taxation issues.
- Cash flow management and budgeting.
- The difference between cash and profit.

Chapter 4 – *Machine Replacement and Financing*

This chapter provides an understanding of machine replacement decisions and the factors involved including:

- Capital costs.
- New versus used.
- Production versus financial risk.
- Repairs versus productivity.
- Financing, requirements of financiers, types of security/lending and terminology.

Chapter 5 – *Employment Issues*

Experience suggests that labour is the single largest cost for any logging operation, also that quality of workforce (and management of staff) has perhaps the greatest single impact on productivity and ultimately financial performance. Getting it right is critical to success. This chapter will review:

- Types of employment arrangements.
- Employment Relations Act.
- ACC.
- Incentive programmes.
- Payroll issues.

Chapter 6 – *Health & Safety / Environment issues - Social Licence to Operate*

If the industry is to remain acceptable to the public sound H&S and environmental management is essential.

After reading this chapter you should have an understanding of the basic industry guidelines and codes of practice, with reference to additional sources of information to assist tailoring to specific requirements.

Chapter 7 – *Contracts and Tendering*

This new chapter provides a template for the type of issues you should be considering and presenting to Forest Owners when tendering for new work and what should be included in a “best practice” contract document.

Chapter 8 – *Improving Business Competitiveness*

An overview of business and staff management and problem solving approaches that may assist in creating a more successful business environment including sections on:

Appendices

1. *Costing model* and example, including details of how to input to the electronic model and reinforcing the principles in Chapter 1.
2. *Cost model instructions*. Not designed to be a specific configuration, rather to illustrate how the model might be put into practice across a different range of machines.
3. *Manual machine costing form*, for those who have not yet found the on button for the computer. Even for those who are computer literate it is recommended some manual costing may assist better understanding of costing principles. The results from both manual and computer modelling should be the same.
4. Various useful *links* to websites that may be helpful to contractors

CHAPTER 1

COSTING PRINCIPLES

CHAPTER 1

COSTING PRINCIPLES

INTRODUCTION

To arrive at a day rate it is first necessary to estimate the cost of all the inputs needed to run a particular operation. Some inputs are major (such as labour and machines) while others are minor (operating supplies), but all should be included. This chapter covers the following:

Operating Time
Machine Costs
Chainsaw Costs
Labour Costs
Vehicle Costs
Operating Supplies
Overhead Costs
Indexation
Profit

Each operational cost should be converted to a cost per working day. This provides a total daily cost, at which time a return for management, supervision and risk (profit) should be considered and added to give a total cost per day. When related to an estimated daily production rate (*Chapter 2*), a cost per tonne or per cubic metre of wood can be established. This is the job rate.

KEY DOCUMENTS

The links below will download the key supporting documents that will assist the user through this chapter.

When you click these links, you will be prompted to save these files on your computer or will be asked where you would like to save these files. It is suggested that you use a working folder to keep all of these files in one place.

Remember to save your work often to make sure that your work is captured in the document. Save your work prior to exiting the document.

These documents are referenced multiple times throughout the chapter.

The costing model worksheet can be downloaded *here* and notes to assist understanding the inputs can be downloaded *here*.

The daily target spreadsheet can be downloaded *here*.

A diagrammatic summary of the various job costing components can be found *here*.

Manual templates and additional information sheets can be downloaded by clicking the links below:

- *Budget Manual Overview*
- *Machine Hours Template*
- *Manual Chainsaw Costing*
- *Manual Machine Costing Calculations*
- *Stats Links*

OPERATING TIME

For consistency all elements of the costing need to be converted to a standard basis. This is commonly the work day, or in some instances working hour.

Scheduled Operating Time – Workdays or Hours

This is the time the crew is available to work:

- Total Days : 52 weeks x 5 days = 260 days
- Less : Annual Holidays = 20 days
- Less : Statutory Holidays = 11 days
- Scheduled Work Days = 229 days

Note: To be adjusted up or down by overtime (Saturdays) or wet days or special leave.

To derive scheduled operating cost, multiply the above by paid hours (labour), or expected machine hours. The *costing model* will assist.

MACHINE COSTS

All costings are exclusive of Goods and Services Tax (GST) as GST will be claimed back from the Inland Revenue Department (IRD).

Machine costs are worked out on the basis of a rate per hour. This is determined on an expected average cost over the effect of working life of the machine. When working out the job rate each machine's hourly rate is converted to the workday rate by multiplying the hourly cost by the number of productive machine hours worked per day.

Machine costs exclude operator's wages and other operational costs which are covered elsewhere in the costing process.

Machine costs can be separated into fixed costs, i.e. those which do not change whether or not the machine is used, and variable costs which will change based on usage. Detailed calculation process can be found here.

Machine costs exclude operator's wages and other operational costs which are covered elsewhere in the costing process.

Machine costs can be separated into fixed costs, i.e. those which do not change whether or not the machine is used, and variable costs which will change based on usage. These are detailed in the individual tabs on the *costing model spreadsheet*.

OWNING COSTS

Fixed owning costs are:

- Interest.
- Insurance.

These costs are incurred whatever the level of usage. Increasing the productive hours a machine works in a year spreads the fixed costs over a greater number of hours, and therefore lowers the total hourly cost of running a machine.

Depreciation

The other owning cost is depreciation. Depreciation is the decreasing value of a machine arising

through use or aging. Every hour of use represents a cost to the owner. So while it is an owning cost, it is variable, depending on hours worked. This should not be confused with the IRD definition of the word depreciation to describe a tax deductible cost allowance.

Standard industry practice to calculate depreciation is to use the straight-line method, due to the advantage of its simplicity in comparison to other methods of calculating depreciation:

Capital cost less tyres/tracks less residual value, divided by machine life

If a machine is worked regularly for extended hours, this will mean its effective working life in years (but not hours) is reduced. This is important to consider when establishing loan repayments, which should not extend beyond the effective working life of the machine.

5 years would be the maximum repayment period for full time loaders, skidders (tracked and rubber tyred), processors and feller bunchers. Hauler repayment terms will vary based on age and condition, with 10 years considered an acceptable term for new machines. Extended hour loaders (for example, being used for 12 hours per day) should be repaid in 3 years for new machines and in less time for second hand units.

Capital Cost

This is the purchase price of the machine (GST exclusive), including freight and attachments, in a condition ready to work ("bush-rigged").

Residual Value

This is the sale price at the end of machine life. Industry experience suggests a long-term guide for most machines (with the exception of haulers) is 25% of the capital cost after 10,000 machine hours. This may be extended to 12,000 hours for purpose built (rather than retro fitted) grapple loaders, processors and feller bunchers.

Residual value is influenced by:

- The maintenance history of the machine.
- Exchange rates (a lower NZ$ increases the cost of imported goods, and vice versa).
- Market conditions and the state of the forest industry.

At any time these factors may significantly affect market value of a machine. The purpose of a costing is to establish a fair sustainable rate that will allow for replacement with an equivalent capacity machine. As future residual value cannot be predicted with accuracy standard industry practice is to use either the 25% benchmark or possibly the current value of an equivalent machine at the end of its economic life.

The Impact of changing prices on Depreciation Calculations

Depreciation estimates will not allow properly for replacement during a logging machine's life unless care has been taken to allow for the changing value of new machines. Inflation, model changes and foreign exchange movement) will all affect the value of machines already in the field. A realistic way of dealing with this is to calculate depreciation in each year of the machine's life, based on the cost in that year of an identical or similar machine, not the original price or a hypothetical future price.

So, depreciation should be calculated using today's values for both the purchase price and resale

value of a machine. The depreciation cost will need to be re-calculated and incorporated in a new machine cost and contract job rate, preferably each year.

As this depreciation is in practice considered to be an allowance for repayment of borrowed capital or for replacement of the used machine with a new one, not recalculating the job rate in this manner may result in contractors not maintaining the normal replacement programmes that ensure reliable machines.

For this reason, all costing data in this handbook use current new and current used machinery prices with the following age limitations:

- Skidders and tractors: 7,000 – 10,000 hours
- Excavators and wheeled loaders: 7,000 – 12,000 hours
- Haulers: 15,000 – 25,000 hours

Machines older than this should not be costed on the current cost method, as reliability will deteriorate and they could not be said to be part of a normal replacement programme. While you may be familiar with equipment still working with greater hours than the above guidelines, the issue is that repair factors, and perhaps most importantly available machine hours are significantly compromised. If fully accounted for, older machines may well be more costly than new equivalents, especially if lost production due to downtime is included. Possible exceptions to this rule being imported haulers and machines with low usage requirements e.g. mobile tail holds.

To illustrate the effect of price changes looking at the following example is helpful. A Feller Buncher indicative price rose from $855,000 in 2015 to $875,000 in 2020, i.e. $120,000 or a 14% increase in 5 years. If a contractor continued to use the original cost of the machine in their costings over this period, then the amount received in their rate to allow for machine replacement would be short by a significant amount:

Difference in purchase price	=	$120,000
Increase in trade value (assumed 25%)	=	$30,000
Net Shortfall		$90,000

Or 9.2% of the cost of the new machine, a significant proportion. Accordingly, it is best practice to re-cost an operation annually to reflect current pricing. Failure to do so may compromise a contractor's ability to replace the machine with a comparable machine at the end of its useful life.

Average Capital Invested

For costing purposes the standard method used to calculate the interest cost of borrowing money to invest in a machine is to calculate an average figure to represent the Average Capital Invested (ACI) each year in the machine over its life, and then apply an interest rate to that sum.

Working out the amount of invested capital takes into account the depreciating value of the machine. The ACI method of calculating the average value of yearly investment over the entire economic life of the machine is usable only if the straight-line method is used to calculate depreciation. Most costing methods use this approach to find the average capital invested. The *costing model* incorporates the necessary calculations. Manual calculation sheets can be found in the *key documents section*.

Remember this process does not allow for increasing machine values, so the ACI should be worked out every year using current figures.

Interest Cost

Borrowed money requires capital plus interest payments to the lender. If the owner puts up the money themselves they will not have to pay interest but must consider what return they could have got from an alternative investment such as a savings account, or repayment of other loans such as their home mortgage, both safer than investing in machinery! This is referred to as "opportunity cost" and must also be provided for in the costing.

Considering the returns from alternative investments, and the additional risk from investing in machinery in the forest industry, the cost of owner's funds could be as high as that of borrowed funds (if risk is not accounted for elsewhere in the costing).

Sometimes the savings rate is used. However, that is for a low-risk investment. A contractor's money tied up in a machine is effectively unsecured. Look at the interest rate on your credit card to see how banks rate that risk! The necessary reward for risk will be covered when discussing profit, which should be considered as the return for management effort, supervision and risk.

Historically, costing models use a standard ratio of 75% borrowed funds and 25% owner's funds for average annual interest calculations (in relation to ACI, not capital cost) for costing purposes, and this has been retained in this handbook, but other options are available. The costing model applies a weighted average interest rate to the average capital invested should there be a difference in interest rates used. Given the risk factors noted we suggest just using the finance rate applied as a benchmark figure for these purposes.

It is very important to update the interest every year to allow for both machine price interest rate changes. Dividing this annual interest charge by the hours worked per year will give the interest cost per hour worked.

Insurance

For costing purposes insurance cost is applied to the average cost of the machine i.e. ACI. As with interest rates insurance also fluctuates on market conditions. Current industry experience suggests 2 – 3 % of the ACI may be suitable for machines, although because of greater risk a higher rate may be appropriate for vehicles.

Remember the purpose of costing is to establish a fair market rate for normal circumstances. If your insurance/interest is either higher or lower than "average" is it fair (to you if lower or to the forest manager if higher) that you use your actual rates, rather than reasonable averages?

Insurance charges vary widely and depend on:

- Your claim history.
- The industry's claim history.
- The performance of your insurance broker.

Other types of insurance are included in Overhead Costs, including:

- Fire and rural insurance.
- Public liability insurance.
- Statutory covers.

RUNNING COSTS

Running costs include all costs incurred when the machine is used:

- Fuel.
- Oil.
- Repairs and Maintenance.
- Tyres/tracks.
- Rigging.

Fuel

Fuel consumption depends on the engine size, load factor, condition of equipment, operator habits and environmental conditions. The best estimates for this come from good record keeping and reviewing information (if available) from a machine's digital recording system.

Historic benchmarks for various machine classes have been developed as follows:

Haulers,	0.11 l/kW/hr
Other ground base equipment,	0.16 l/kW/hr
Processors,	0.22 l/kW/hr

We suggest these should be used only as guides and in the absence of more accurate actual information as noted above. Operating conditions, and possibly operator experience will also impact significantly on usage expectations.

Oil

Once again use actual figures if available. Alternatively use a percentage of fuel cost. Commonly 15-20% is considered appropriate for most machinery, with 20-25% for excavators fitted with felling attachments, and 30-35% for processors to better reflect higher requirements of such machines.

Repairs and Maintenance

Repairs and Maintenance (R+M) covers all costs needed to maintain a machine in good working order, from preventative maintenance to major overhauls. Note that tracks/tires are covered separately in the costing module.

Repairs and maintenance costs always increase with age and are hard to predict from a previous year's records. An established contractor with history of mixed aged plant may be able to derive some useful benchmarks to assist.

Most costing methods suggest using a percentage of depreciation, based on new machinery depreciation values, for an estimate of R+M. This handbook uses that approach. Table 1.1 gives a range of options commonly used.

Operating conditions – includes operator care (%)			
	Easy	Average	Hard
Tractor	60	65	75
Skidder	50	65	80
Excavator	55	65	80
Wheeled loader	50	65	75
Cable hauler	50	70	85
FB/Shovel logger	65	75	90
Bell logger	80	100	120

Table 1.1: R+M as a Percentage of Depreciation

Repair and maintenance costs estimated with this technique will vary with life, hours of use, purchase price and resale value assigned to the machine. Most costings give a midlife average value which in terms of actual costs are likely to be incurred will be too high early in a machine's life and too low later. But always remember the purpose of the costing exercise is to derive a fear average long-term price model for costing purposes. Managing the cash flow differences/timing issues that arise is covered in *Chapter 3, Financial Management*.

Repairs and maintenance estimates for used haulers or second-hand machines are more difficult. It is important to look at the repairs that are likely to be needed over the life of the machine. In particular experience suggests that every 4 – 5 years major rebuilds may arise which need to be either incorporated in the repair portion of the costing or alternatively provided for by using a lower residual value.

Remember, your labour is valuable. Many contractors are handy mechanically and do some work themselves. But time doing that is not producing logs or working on the business. Even though you don't write out a cheque or receive an invoice, it is still a cost to you so use an expected open market cost for all services and don't give away your time.

Tyres and Tracks

This cost can be estimated by taking the cost of replacements, including labour required for fitting and dividing the total by expected life in hours. Specific operating conditions can have a major impact e.g. operating on scoria/pumice, as always expected life will be most accurately determined from records, but without records Table 1.2 provides a guide.

Ground conditions	Easy
Easy conditions (smooth ground and mild slopes)	60
Moderate conditions (rough ground, steep slopes and obstacles)	50
Severe (rough, rocky, obstacles, steep)	50
Loaders on skids	50

Table 1.2: Tyre Life for Various Terrain Conditions

Ropes and Rigging

An hourly estimate of costs can be calculated by taking the purchase costs of each item and dividing by expected life in hours. Some indicative life expectancies are shown in Table 1.3 but the best estimates will only come from good record keeping, as life of rigging varies widely from one operation to another depending on conditions, volume and operator expertise.

Guylines	5,000
Straw Line	5,000
Butt Rigging	5,000
Blocks	5,000
Shackles	5,000
Carriages	5,000

Table 1.3: Rigging Life Estimates

TOTAL MACHINE COSTS

Owning costs and running costs are added together to obtain a total machine cost per hour Estimates of how many hours each machine works in a day will be obtained from contractor records (*Chapter 2*).

Machine costs can be calculated by using the *costing model* and accompanying *costing model instructions*, with manual templates also provided. These documents can be downloaded in the *key documents* section.

By using the model it is easy to change some of the variables and see how hourly rates change. This is commonly known as “sensitivity analysis”. For example, increase your scheduled hours, and you will get a better "feel" for the effects of changing hours on your costing. And if you are an established contractor you may be able to compare outcomes to your actual history of costs.

CHAINSAW COSTS

As with all costings, chainsaw costs should be based on the contractor’s specific circumstances. Unusual and harsh operating conditions can impact significantly.

Where a contractor is providing chainsaws and fuel, the actual costs of running a chainsaw should be calculated. To do this, the standard machine cost calculation has been adapted for chainsaws and once again is incorporated in the *costing model* or for manual calculation process refer *here*. The following guidelines can be used as estimates (if records do not give more accurate figures).

If chainsaws are owned by workers, the costs of the chainsaw will be included in the labour costing as non-taxable allowances (Appendix 1.6).

Life

With full time use (more than 5 productive hours per workday) allow a one-year life. Specific usage and conditions will affect this lifespan.

Fuel and Oil

Allow two tanks of fuel per hour, and 2 tanks of bar oil per hour (including spillage).

Chain Life

For clearfell skid work on ash or sand, allow 2-3 days chain life, on other soil types allow 3-6 days. For thinning skid work, allow a range of 11-22 days, with an average of 18 days. For clearfell tree felling, allow 11 days, and for thinning tree felling allow 14 days.

Bar Life

For clearfell skid work, allow 45 days, for thinning skid work, allow 120 days. For clearfell tree felling allow 80 days; for thinning tree felling allow 100 days.

Repairs and Maintenance

This is expressed as a percentage of depreciation according to saw size: less than 70cc = 60%, 70-90cc = 50%, over 90cc = 40%.

LABOUR COSTS

Labour is the single largest individual cost in any operation so it is important to calculate correctly. In New Zealand motor/manual operations (now increasingly rare), labour will account for up to 45% of the total daily costs. For mechanised operations, labour will account for 20-35% of the total daily costs.

When calculating labour costs, total all the annual costs of employing a worker and then allocate this total cost to the days worked during the year (i.e., total annual costs divided by the number of workdays per year). The *costing model* incorporates a detailed templated to assist calculations. The following guidelines will assist in using this template.

Crew Work Days

The total number of crew work days is the total paid days minus the non-work days. For example for 5 days per week, total paid days equals 52 weeks x 5 days per week. Saturdays should be added if these are regularly worked.

From this, subtract annual holidays, statutory holidays, wet days and sick leave. The result is the total number of crew work days. Annual and statutory holidays will normally be detailed in an employment agreement. The average number of days lost through poor weather or sick leave must be judged through experience with local conditions. This is the same process as for calculating the *"operating time"* as referenced at the start of this chapter.

Ordinary Hourly Rates

Wages should be based on ordinary time hourly rates. Each hourly rate should be multiplied by the hours worked per day by each worker then by the number of workers paid at that rate. The results are then added up to give a total for the crew. The contractor personally should be included in this section at an appropriate rate if they are an employee-shareholder.

Treatment of travel time varies between contractors, the issues and options are discussed further in *Chapter 5*.

Non-Taxable Allowances

Next, calculate non-taxable allowances applicable if any employees are providing chainsaws or

have other entitlements. Derive an annual total for non-taxable allowances and include it in the costing. See *Chapter 5* regarding the setting of non-taxable allowances.

Total Annual Crew Cost

The total annual crew cost is calculated by working through the template using the total daily total. Total up the days for each kind of payment made (ordinary time, special leave, travel time, overtime, etc.), and multiplying by the daily cost to get the annual cost.

Where a bonus is paid, it is shown as a yearly total for the whole crew. Where overtime is expected to be regularly worked it should be included, at the daily rates agreed in employment agreements.

The yearly costs so far included are now totalled and the annual holiday pay cost is calculated as a proportion of that total. For four weeks, this is 8% of the gross taxable earnings. The current Accident Compensation Corporation levy is then added onto the total earnings including holiday pay.

Total non-taxable allowances, calculated earlier, are now added to the wages total worked out above to arrive at the total annual crew cost.

To calculate the labour cost per workday (for the job costing), divide the total annual crew cost by the number of workdays per year. Dividing again by the number of workers in the crew will give the average daily labour cost per worker.

The same process applies if workers should be either subcontractors or paid on piece rate. More details on those payment systems can be found in *Chapter 5*.

VEHICLE COSTS

The full cost of all transport required must be included in the crew costing. Vehicles are normally costed on a per kilometre basis. The *costing model* provides a detailed vehicle costing using a similar format to the machine/chainsaw costing models.

The distance the vehicle is run each day should be determined then distance travelled is multiplied by the cost per kilometre. One common mistake is to allow merely for the distance from contractor's home to job site. This can be inadequate as commonly vehicles are required to:

- Collect/drop off workers.
- Collect supplies for crew.
- Come back to town for urgent parts, and.
- Transport the contractor to attend meetings with the forest manager.

All these can add considerably to total kilometres and should be included in the costing.

Fuel Usage

As in the machine costing section, your own records will provide the best estimates of fuel and oil consumption. Fuel consumption can be based on figures available from *www.fuelsaver.govt.nz.* Experience suggests the hard life of crew vehicles can increase fuel consumption to levels significantly higher than manufacturer's guidance.

An estimate for vans and utility vehicles up to two tonnes is 0.08-0.12 l/km. Diesel trucks (3.0-5.0 tonnes weight) use approximately 0.10 – 0.12 l/km.

Taxation

Owning costs comprise licences, registration and warrants/certificates of fitness. The running costs part of the costing, comprises Road User Charges (GST ex) based on a per-kilometre rate.

OPERATING SUPPLIES

This category of costs groups together a large number of smaller items which are necessary for running a logging operation but have not been included elsewhere. Many of the items individually make only a minor contribution to the overall operation cost, but it is important to be thorough and ensure everything is included.

The items to be considered are specific to each particular operation, but operating supplies tab in the costing model gives a comprehensive list of options from which to select. The cost of these supplies can be estimated either by considering the life of each item and its replacement cost, or estimating the total amount and cost of supplies used each year. An all-risks insurance cover premium may be added. A general rate for this is 27 cents per $100 (0.27%).

OVERHEAD COSTS

As with operating supplies these comprise a number of small items, an overview of which can be found in the overheads tab in the costing model. The cost listed is assumes that no office space is rented, but that the administrative and clerical activities of the contractor's business are carried out from a “home office”, in which separate office space is set aside. And commonly supplies will be stored at home in a garage or workshop. For tax purposes claims may be able to be made against these costs and we suggest contractors discuss these with their accountant.

Office Administration Costs

Allowance for the costs of the various systems required to be maintained by a contractor, either personally or via an office assistant/partner should be provided for, including:

- Maintaining management systems (health and safety, training records, etc.)
- Preparation and maintaining payroll records
- Accounts records

Public Liability and other Insurance

A Public Liability policy indemnifies the contractor against legal liability for any unexpected damage to property or bodily injury to third parties. Most policies provide cover for levies imposed by a fire authority under the Forest and Rural Fires Act 1977 and liability for costs incurred by any other party in protecting their property from fire. Public liability insurance is a requirement of most contracts with forestry companies (not just logging contracts). Other insurances are available for statutory cover. Rates can be obtained from your insurance company/ broker.

Training and Supervision

Training and supervision is a necessary part of every contractor’s responsibilities for a number of reasons, including: the requirements of the Health at Safety at Work Act 2015; the emphasis on health, safety quality and environmental management by forest managers; the high value of machinery and the potential for productivity gains from having well trained employees. A percentage of total labour costs as a training allowance covers costs of training and assessment,

supervision of new employees and costs of relief operators needed while operators are undergoing training. Three per cent of total labour costs is often considered a reasonable estimate.

INDEXATION

Indexation is a technique to adjust costs for inflation/changes in price. Costings are current as at a certain point of time. If prices move appreciably, and outside the control of the contractor, then it may be necessary to adjust the contract rate to maintain the original intended relative positions between forest manager and contractor, so that neither party is unfairly disadvantaged. This is particularly important if prices are not subject to re-pricing in the market.

Indexation is highly desirable to balance the risks between the forest manager and contractor and maintain the integrity of the original agreed pricing. Also, if a sound framework of indexation is established, future negotiation of rates and prices may be greatly simplified, to the benefit of both parties.

While indexation in New Zealand has historically largely been confined to fuel (comprising between approximately 12 to 20% of the day costs in most operations) there is no reason why it should not apply to all inputs. This is frequently the case in many commercial contracts, and also Australian forestry contracts where up to 100% of inputs may be indexed.

Statistics New Zealand's price indexes are commonly used by New Zealand businesses in long-term commercial contracts as provide an independent source of verification of movements. However other independent benchmarks, such as pump prices for fuel from a specific supplier, may be mutually agreed between both parties to a contract where information is readily available.

Various indexes use different methodology so even same date reported figures can differ considerably between different sources. Therefore, it is important to use one consistent reference point and not chop and change sources of information. The key to indexing is the focus on the percentage movement from the agreed commencement baseline rather than the actual headline figure on any given date.

The Statistics New Zealand website has traditionally provided a useful source of information. The statistics cover a wealth of components, those particularly relevant to the forest industry including:

- Energy Price Indexes – including bulk diesel and petrol costs.
- Labour Cost Index – these costs consist of base salary and ordinary-time wage rates, overtime wage rates, and non-wage labour-related costs. They are available both as a national average, also per industry, although unfortunately forestry is included under agriculture.
- Producer Price Index – reflecting the cost of industrial inputs, such as machinery.
- Consumers Price Index (CPI) – while not specifically related to forestry, CPI can be a useful benchmark for considering general price movements in overhead//transport areas of costings.

Unfortunately, Statistics NZ have changed their links so that links go to a specific quarter reporting so require regular updating. Refer *here* to a current (as at time of writing) link which should assist taking you to relevant area for updated information where necessary.

Potential Problems

There are several possible sources of ambiguity associated with indexation clauses. The index used in the contract needs to be specified carefully to avoid the potential for dispute – poorly specified index names can be a source of confusion. Another potential source of dispute arises from unclear references to dates, particularly in relation to the base period, or timing from when any adjustments are to take effect.

Prices may move down as well as up. This is to be expected since indexation is designed to maintain the relative cost position of both parties, as was intended at the commencement of the contract. It reduces the risk of unfair and unexpected outcomes.

At the very least, fuel price indexation should be considered in contracts, and is becoming increasingly common. Fuel price increases have significant potential to erode profit margins. Price spikes can occur rapidly and have an immediate impact to a Contractor's cashflow.

The following comments identify some common problems that may arise, and include some recommendations:

- Commonly used escalation formulae are based around a percentage of fuel and oil (and remember that needs to include vehicles and chainsaws, not just machines). Historic ratios (that forest managers may be more familiar with) have been considerably lower and it is important that the current fuel ratio is included when an indexation clause is being established, not an historic, and possibly lower, figure.
- Frequency of adjustments has a significant impact on profitability. Where there are adjustments, commonly these are quarterly in arrears meaning that when costs are increasing and new rates are set on the previous quarter figure, the contractor is effectively carrying a quarter of rising costs. That is a permanent and non-recoverable cost.
- Some escalation clauses only apply after a certain minimum amount of increase (either percentage or cents per litre), once again meaning the contractor carries the cost if the hurdle increase is not activated.
- Demand for trained and experienced forestry harvesting employees has generated some noticeable increases in wage rates. These increases can be regionally specific, depending on log demand and supply in the area. Such movements will not be reflected adequately on the Labour Cost Index. Where possible, Contractors should consider pricing in an allowance for expected labour increases when negotiating rates. Alternatively, forest owners may be receptive to increasing rates if this ensures a productive and safe crew working in their estate.

Recommendations

To overcome the above issues, when implemented, escalation clauses need to:

- Be based on realistic fuel ratios (and crew daily cost) at the time of implementation. Basing on historic fuel ratios creates a permanent distortion.
- Apply adjustments at least monthly.
- Be applied to current period, not be applied in arrears.
- Reflect the full amount of cost movement (either increase or decrease).

PROFIT

Profit in the job costing is a return for management, supervision and most importantly **risk.**

Cost Already Allowed For

- Interest costs on the capital invested in machinery.
- A wage for the contractor (if a working member of the crew).
- An allowance for the loss in value of machines owned due to their use (depreciation).

Cost Not Yet Allowed For

- A return for managing the business and creating and maintaining all operational systems and complying with contractual obligations.
- An allowance for the risk involved in giving personal guarantees over assets such as the family home. These are real risks that can include personal bankruptcy.
- The risk in buying a machine with a five-year life with only one year of work (or less) guaranteed for it. Notwithstanding notional term of contract, even up to five years, experience indicates that many contractors have been terminated at short notice when market or other conditions change.
- The unsecured investment in the machinery. To tempt another investor to invest in a machine behind a finance company would require a high rate of return.
- Compensation for the staff supervision necessary when running a contract operation.
- Recognition that the contractor incurs all liabilities in complying with all statutes, regulations, by-laws and codes of practice applicable to the work to be carried out, including those related to the safety of all workers, including but not limited to the following:
- Fire and Emergency New Zealand Act 2017 (compliance with rural fire plan).
- Resource Management Act 1991 (compliance with resource consents).
- Heritage New Zealand Pouhere Taonga Act 2014 (dealing with identifying and protecting archaeological sites).
- Health and Safety at Work Act 2015.
- Hazardous Substances and New Organisms Act 1996 (dealing with hazardous substances, including fuel).
- Injury Prevention, Rehabilitation and Compensation Act 2001; and the Accident Insurance Act 2001 (compliance with ACC requirements).
- Employment Relations Act 2000 (compliance with employment law).
- Approved Code of Practice for Safety and Health in Forest Operations 1999 (statutory requirements, regulations and preferred work practices for health and safety).
- Environmental Code of Practice for Plantation Forestry (best environmental practices for forest operations).

Before profit is included, the contractor is in a similar position to an employee of the company, but with additional responsibilities and personal financial risks.

A return for management, supervision and risk (profit) is often expressed as either a percentage of average capital invested, a percentage of operating costs, or a lump sum assessed by the owner. In this handbook the allowance used for profit is 10 % of the total operation cost, although in a highly competitive situation, a logging contractor may be in no position to add much profit to total operation costs.

JOB COST SUMMARY

Once all the operation's costs have been calculated and profit margin has been considered, all costs can be brought together in terms of costs per workday, as per the *job cost summary*, to establish the total daily cost.

The total is divided by the estimated daily production to give the job rate or contract rate, usually in dollars per tonne. Depending on the nature of the harvesting operation, the contract rate is per tonne of wood produced to roadside or landing, “on truck” (loaded) or “at mill” (delivered). In Chapter 2, it will be shown that daily production can affect the logging rate to a greater degree than the daily crew costing.

With increased demands for quality of output, trained staff and the requirements of legislation, competition is no longer on price alone. *Chapter 7 - Contract Tendering* suggests some of the information that should be part of a tender proposal – the logging rate is only one part of that proposal.

CHAPTER 2

PRODUCTION MANAGEMENT

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PRODUCTION MANAGEMENT

INTRODUCTION

To calculate and agree a logging rate in dollars per tonne, the production of the logging operation must be estimated over the same time span, the workday, as the cost (detailed in Chapter 1).

Production of a logging operation is usually measured by the volume or weight of logs produced. As most operations are paid on this volume or weight of logs it becomes very important to monitor, record and predict an operation's production.

Daily production (in truck loads) provides a quick guide for the contractor to daily performance. Daily/weekly production can be reviewed from load out sheets or now often online. Monthly performance can be quickly checked by dividing the monthly tonnage (from the logging payment summary) by the number of days worked in the month and comparing this against the agreed production target.

Fully mechanised crews need consistent production to ensure the high capital costs can be serviced. High loan repayments associated with these crews places immediate pressure on cashflow if production targets are not met. This makes production monitoring crucial. A contractor under these circumstances must take urgent action to address production shortfalls. Relatively small monthly production shortfalls can accumulate into a large annual shortfall.

The contractors configuration and volume targets should be matched to the forest's available infrastructure and actual trucking capability. A contractor carrying higher fixed costs for greater potential production will compromise profitability if that additional volume cannot be uplifted.

There are also a number of tools a contractor can use to monitor production, daily, weekly or monthly. This chapter covers the following topics:

Why Monitor Production?

Incentive Payment Systems

Production Records

Production Rate Estimation – at the Stand Level

Troubleshooting

Units of Measure

Factors Which Influence Production

Measuring Production

Set Up a System

WHY MONITOR PRODUCTION?

All contractors who take on a logging contract will have agreed a logging unit rate (dollars per tonne) by dividing the operation's total daily costs by an estimated daily production (tonnes per day). This then becomes the daily production goal or target.

While there is considerable emphasis on establishing crew daily costs, when it comes to determining the unit rate, i.e., $/tonne, the expected production of the operation is therefore equally important.

Accordingly, the setting and monitoring of actual production against this target is critical for:

- Contract profitability.
- Rate setting purposes.
- Monitoring and feedback on crew performance.

Contract Profitability

Under- or over-achievement of target can have a disproportionate effect on cash flow and profitability. If production is more than this target, income (production multiplied by unit rate) increases over and above costs, resulting in higher profit. On the other hand, not producing to target reduces profit. The following example illustrates how important meeting the production target is:

Job cost of operation	$6,000
Plus profit of 10%	$ 600
Crew Daily Rate	$6,600 per day
At 220 tonnes per day the unit rate is agreed at	$30 per tonne
Daily production drops 10% to 198 tonnes per day	
Log Revenue is $30 x 198 =	$5,940
Assuming job costs remain constant	$6,000
Profit falls to	-$60
Production increases 10% to 242 tonnes per day.	
Revenue is $30 x 242 =	$7,260
Assuming job costs remain constant	$6,000
Profit increases to	$1,260

In summary small changes in production can have a major effect on contract profitability and cash flow. Assuming that the actual inputs (costs) in the crew remained the same under either level of production, the example shows a 100% change in profit with a 10% change in production, or ±$660 per day, which is over $151,000 per year (based on 230 work days).

When negotiating a contract with a potential employer, remember that a slight change in the agreed daily production target (say 5 tonnes) will have more financial impact than whether the allowance for overheads is $100 or $120/day. Changes from target of as little as 2% can have a large effect on profitability.

This means that estimating daily production should be accorded as much attention as calculating crew daily costs, if not more.

Rate Setting

Having determined the day rate for the crew through the job costing process, this is then divided by the expected average daily production to determine the agreed unit rate in $/tonne.

Determining an appropriate production target is often an area of debate between the contractor and forest manager. While a number of target setting models have been developed to assist this process, the variables relating to any harvest area can be significantly different.

More detail on the many variables that influence daily production is given later in this chapter, but the base variables for calculating a production target are:

- piece size of extracted stems.
- extraction or haul distance.
- terrain factors.
- soil types.

Models can be developed for productivity, but fine tuning of the target needs to take into account all the production variables. Developing and maintaining a system for recording production variables against actual production performance allows contractors to accurately assess production targets expected from similar conditions.

Building up a history of production results can greatly assist contractors in assessing similar blocks, and calculating appropriate unit rates for future work. This is covered later in this chapter.

Contractor ability is also a large factor in assessing productivity i.e. not all contractors are the same! The production target should be calculated based on an average productive contractor ability.

Consistent underproduction may result from:

- Poor contractor performance / decisions.
- Inappropriate and / or unreliable equipment.
- Sub-optimal configuration for crew.
- Factors outside contractor's control such as engineering / trucking.

It is therefore vital that the contractor regularly monitors production so that the reasons for actual performance against target are understood, and what, if any, actions are required to be taken.

Monitoring and Feedback

As well as providing production estimates for rate setting it is essential to monitor and report on production to:

- Provide target production rates for both the crew and individual operators, in terms that relate to their role in the crew (perhaps trees felled per day for a faller, stems per hour for a processor operator, or drags/cycles per day for a skidder/hauler operator).
- Focus crew members on improving production, and identify areas where assistance or training may be required.
- Show the effect on production arising from operational variables, such as;
    - Increases or decreases, or reallocation of labour.
    - Stand characteristics (stocking, branch size, tree form, malformation).
    - Terrain factors (slope, direction of extraction) and soil types.
    - Number or type of machines used.

- Quota restrictions.
- Landing size and layout.
- Change in the number of log sorts to be cut.
- Safety or other requirements (wind throw, stream edges, power lines).
- Road control issues.
- Monthly or seasonal cycles.
- Truck scheduling.
- Engineering (roads and skids).
- Environmental compliance constraints.

Appropriate records help in other areas of business planning, which will be covered in more detail later in this handbook:

- Cash flow and budgets.
- Proposals for expansion, new or additional equipment.
- Repair and maintenance planning.

UNITS OF MEASURE

The most common unit of measure upon which contractors are paid is dollars per tonne. While this applies to the vast majority of forest managers, in some circumstances, particularly when supplying domestic mills or woodlot operations for export, other units of measure may be used, including:

- cubic metres or m3 (domestic);
- JAS m3 (export).

Radiata pine clearfell logs generally have a volume of less than one cubic metre per tonne of logs, so to get a true comparison contractors need to make an adjustment, called a conversion factor, expressed in m3/tonne. This can be difficult to determine until actual long-term results are available, as the conversion factor varies for a wide range of reasons including:

- Geographic location (latitude).
- Altitude.
- Time of year (season).
- Size / age of trees.

As a broad guideline, 1 tonne of Radiata pine logs may convert to approximately 0.90 to 0.99 cubic metres; generally the smaller/younger the tree the lower the conversion factor. This may not seem like much, but using an example of 0.95 m3/tonne, a logging rate of $25 per cubic metre is equivalent to only $23.75 per tonne (i.e., $25/m3 x 0.95 m3/tonne). Alternatively, if the required logging rate was $25 per tonne then the equivalent cubic metre rate would have to be $26.32 to be equivalent (i.e., $25/tonne divided by 0.95 m3/tonne).

Under the above scenario the difference in daily costs for a 200 tonne per day crew is potentially $250 per day or over $57,000 per annum.

Different species have different conversion factors which must be allowed for when measuring production. Other factors which influence the conversion factor are:

- Age of stand – average weight decreases 1% for every 2.5 years of age.
- Season – logs are heavier in winter, an approximate 4% increase over summer.
- Basic density – there can be up to a 20% difference in density between trees in a stand. Because of this, a minimum of 6 truckloads of logs should be scaled to estimate a conversion factor within 5% confidence limits.
- Log size and position of log in tree – top logs have a lower conversion factor than butt logs – a 10% difference where top logs are half the size of butt logs.
- Time since felling– 10% or more of weight may be lost over 6 weeks, especially in summer
- Bark volume – with more bark removed in spring / summer.
- Tree health and position in stand – edge trees have lower conversion factors than stand trees.
- Wind throw or salvage logging – variation in conversion factors increases threefold during salvage logging.

Softwood logs exported from New Zealand are almost all sold on volume, based on the Japanese Agricultural Standard (JAS). There has historically been some distrust by those paid by this measure, as there is no fixed relationship between JAS m3 and cubic volume.

Because of the measurement conventions of the JAS standard regarding small end diameter, and the treatment of taper, JAS m3 volume range from close to true cubic volume for logs of average dimensions, to large errors for smaller diameter logs, or logs with increased taper. JAS volumes 25-30% lower than cubic volumes for small diameter logs (10-20cm sed) of average taper are possible. So JAS m3 can have considerably lower conversion factor to tonnes, down to 0.75 JAS m3/tonne, or even lower depending on the length, SED and taper of the logs.

It is therefore recommended that tonnes be used as the industry standard measure, as it is a more transparent unit of measure and is not subject to as many measurement errors as JAS m3. All examples given in this handbook are based on dollars per tonne.

INCENTIVE PAYMENT SYSTEMS

In an effort to incentivise contractors for extracting log value, some forest managers have introduced different rates for different log grades (“Log Grade Differentials”), e.g.,

- Pruned butt (>35cm sed).
- Structural saw log (<8cm knots).
- Pulp / export grades.

When considering a contractor’s true unit rate it is important in such situations to calculate the weighted average rate. This can be done by applying the differential rate applicable to each grade to the actual percentage of production of that grade.

If a contractor can produce greater than budgeted volumes in the higher grades, then they are rewarded by a higher crew daily rate. However, the reverse also applies, and the contractor can be penalised. For example:

	Target				Actual		
Grade	Tonnes	%age	$/ tonne	Total $	Tonnes	%age	Total $
Pruned	60	20%	28.00	1,680	30	10%	840
Structural log	150	50%	23.00	3,450	150	50%	3,450
Pulp	90	30%	15.00	1,350	120	40%	1,800
Total	300	100%	21.60	$6,480	300	100%	$6,090

To calculate whether a contractor is achieving the expected average, divide the income by the production. In the example, the average rate per tonne is only $20.30 ($6,090 / 300) or $1.30/ tonne [6%] below the required rate even though total production has averaged the required target. In dollar terms over a 20-work-day month this equates to $7,800 lower income.

To be used fairly, it is important that there be a sound basis of measurement of the forest being harvested. Forests where there has been long-term silvicultural management, resulting in relatively consistent tree size and form, a long-standing programme of forest inventory and preferably a history of log production, will be better suited to such systems than forests that may have had variable silvicultural practices, incomplete forest inventory measurement and little production history.

Under the latter scenario, there is fertile ground for ongoing dispute between contractor/forest manager as to expected grade outturn and associated rate and profitability impacts.

Stand data can be problematic. This will set the forest managers expectations of volume targets in each harvest area. The contractor will experience problems with averaging expected daily volume targets from a harvest area if the indicated volume does not actually exist due to inaccurate stand data. If this arises required rates should be renegotiated.

FACTORS WHICH INFLUENCE PRODUCTION

To best monitor and improve production it is important to know and understand the factors which affect productivity. This chapter considers various tools for that process, but firstly identifies the factors that have major effects on production: mechanical and operational; environmental and stand factors; and human factors.

MECHANICAL AND OPERATIONAL

Productivity can be increased if the crew focuses on the “Four B’s”:

- Breakdowns (mechanical delays).
- Balance (workflow).
- Buffers (reducing interference).
- Bottlenecks (operational delays).

Breakdowns

Effective utilisation of machinery is a key variable to production. Utilisation is the ratio of

productive machine operating time over scheduled machine time, expressed as a percentage. There is a big difference between say 8.0 scheduled machine hours, and 8.0 productive machine hours.

Productive machine hours are the scheduled machine hours less downtime. Downtime is broken into three categories: operational delays, personal delays and mechanical delays. In general, it is essential to minimise downtime of any machine. Techniques to consider include:

- Having backup or trainee operators capable of working through crew breaks, and rotating breaks accordingly (and it is always useful to have backup operators available, in case the regular operator is unavailable for any reason).
- Using machines for multiple purposes, like shovel logging or using quick hitch attachments for excavators to do other work.
- Reducing mechanical downtime, perhaps by doing regular preventative maintenance and refuelling outside scheduled operating time.

Balance

Matching the productivity of each phase of the operation is critical e.g. balancing the number of fallers/breaker outs to the extraction machine productivity, or the extraction capacity to the processing machine.

Remember that when introducing new machinery to an operation, like a felling machine to a previously manual falling operation, there inevitably will be a learning curve for operators, and also adjustments required to workflow systems previously used. This may negatively affect short-term volumes and should be considered in cash flow calculations.

One way of balancing the phases of the operation is manipulating the volume per drag or cycle. Volume per drag/cycle, is the number of pieces multiplied by the average piece size per stem. This comprise the volume per productive cycle, be that of a skidder/tractor or hauler.

Volume per drag is affected by the piece size, stand density, whether the felled stems have been bunched, the number of strops used (or size of grapple) and the number of breaker-outs used.

There are always going to be trade-offs between machine size and extraction capability. Each contractor will make their own decisions as to the appropriate balance required. Ideally each drag should be as close as possible to 100% of machine capacity for the conditions, so that the production of the whole operation is geared to the extraction machine capacity (“machine limited”).

The number of pieces per haul can be manipulated in the following ways:

- If stems are too large for a skidder to take three at a time, for example, then hooking on an additional one or two heads might result in an extra half tonne per haul.
- Bunching stems might allow more pieces each haul.
- Directional felling will allow a skidder or hauler more stems per haul, less time to accumulate hauls and easier breaking out.
- Having a person pre-stropping while the machine is extracting means less time to accumulate an optimum load (shorter hook-on time) when it returns.
- Reducing felling breakage will mean fewer small pieces are hauled.

Consideration may need to be given to:

- The cost/benefit of pre-bunching for grapple operations;
- Adding extra strops to a winch skidder or hauler operation.
- Mechanised felling to directionally fell (minimising breakage) and bunch.

Studies have shown that in cable logging, using more strops increases hook-on time. But it also increases drag volume, work studies indicate daily productivity is increased by about 5% for each strop added.

Increasing the number of breaker-outs decreases hook-on time, increasing productivity by around 10% for each extra breaker-out. Combined with increasing the number of strops, this increases payload and reduces cycle time.

Increased availability of grapples for haulers, including tower operations, and concerns over safety issues is decreasing the use of strops but the greater use of grapple extraction needs to be assessed against the overall system costs (grapples and shovel/felling machines) and volumes required/available to offset these additional capital costs while maintaining a competitive unit rate.

There are always compromises between machine capability and variability of conditions (both terrain and tree). This handbook cannot answer those questions for each contractor, but aims to assist the analysis process and later on provide monitoring tools to assist evaluation.

Buffers

To increase productivity and decrease production risk, some operations can be "de-phased" so that buffer stocks are introduced between each phase of the operation, thus reducing interference between one phase and another. Examples are:

- Where a feller-buncher operates ahead of the skidders, eliminating any waiting time for wood.
- "Cold deck" loading where truck loading is done on a landing separate from where the processing and log making occurs.

Care must be taken that buffers between phases are not too large, as productivity may in fact drop if workers are in isolation, and stock levels may increase, affecting "time since felling" and stock rotation ability.

It is also important to ensure that steps taken to improve productivity do not impose more costs than the extra productivity achieved.

Bottlenecks

In essence contractors must fight an ongoing battle to identify and eliminate bottlenecks compromising production in their operation. It is a moving target, as eliminating/reducing one bottleneck will create a bottleneck elsewhere in the system. A common and apt analogy is squeezing a balloon! Common bottlenecks include:

- Extraction machine delays (reducing the wood volume on the skid);
- Where the loader cannot clear the landing chute before the next drag arrives (delaying the hauler, and breaker-outs).
- Irregular truck arrival or non-arrival (causing loader delays and increasing log stocks and skid congestion).

- Harvest engineering issues such as skid size/shape (creating processing bottleneck).
- Number of log sorts cut by log makers can have an effect on log sorting productivity.
- Crew numbers/capability (bottlenecks in volume of felled trees or in processing on skid).

ENVIRONMENTAL AND STAND FACTORS

The environment and stand factors in which the contractor is operating will significantly affect productivity. These may comprise:

- Haul distance.
- Piece size / form.
- Terrain and soil type.
- Engineering.

Haul Distance

Increasing haul distance to the landing results in lower productivity and thus higher cost per tonne. This is a trade-off with the cost of road and landing construction (engineering). For every block there is an optimum average haul distance, where the total logging and engineering cost is minimised. It is important that the contractor and harvest planner work together to balance productivity against engineering costs relative to the particular block.

For example if putting in an extra length of spur road and a landing cost $5,000, but reduced average haul distance by 50 metres and potentially improved extraction productivity by 5% over a 10,000 tonne setting, then the contractor may be quite willing to reduce the rate accordingly, after taking account of any additional costs in processing/loading due to the extra volume.

And while short haul distances may be a good way to increase production, consideration needs to be given to the processing capability and skid capacity. There is no point in "creaming" all of the close wood and flooding the skid, while leaving all the long hauls for later and underutilising processing resources.

Experienced contractors will attempt to balance wood flow to the skid where possible by balancing drags between short/long distances. Where appropriate, identify areas more suitable for production in the wet and reserve them for those conditions.

Piece Size and Form

Piece size is a major determinant of logging productivity and stand factors such as branching and stem defects can have a major influence on processing productivity. Examples include:

- Poor felling techniques or uneven site characteristics such as broken terrain or high tree stumps can increase tree breakage, increasing the number of pieces for extraction.
- Heavy branching slows trimming.
- Stem defects can have an effect on felling and processing machines.
- Directional felling has been shown to reduce tree breakage. Introduction of fixed felling heads into NZ has highlighted value add to forest owners from such technology.

Stand Factors

Stand factors such as slope, soils, climate and undergrowth will also affect daily productivity.

Examples include:

- Hauling on adverse or favourable slopes has a great effect on production as does having to use contour tracks if operating a ground based system. With cable haulers the contour profiles are more important than the steepness or otherwise of the slope.
- Soils – Clay is more difficult to traverse when wet, sand is more difficult when dry.
- Extremes of climate can affect the productivity of both machines and workers.
- Heavy undergrowth can reduce felling and trimming productivity.

HUMAN FACTORS

After all the machinery, tree and terrain issues, there remains one underlying issue affecting productivity, and that is human resources. Crews perform differently because of their skill and their motivation, which in turn are influenced by the contractor's people skills, planning and organisational ability, recruiting, training and retention programmes.

The characteristics of top performing crews include:

- A respected leader with an interest in the workers and the ability to guide them and maintain production goals.
- Clear goals, performance standards and expectations of productivity and equipment maintenance. The crew leader takes action to ensure these goals are understood and expectations are met. The contractor will benefit from the workers adopting these goals and meeting the performance standards.
- Measuring performance and providing timely feedback is essential.
- Good work planning and high job flexibility. There is a definite work plan and crew members assist each other if necessary. High task flexibility assists keeping the operation in balance, reducing workload and boredom.
- Each crew member has individual accountability for safety and equipment, and all crew members have clear roles and responsibilities.
- Equipment is suitable for the task and well maintained.

Overall, successful contractors have definite production goals. Productivity and crew satisfaction increase when crew and contractor goals are aligned. The contractor will benefit from the workers adopting these goals and meeting the performance standards. Piece rate or incentive schemes may assist in achieving this situation, but are not essential given good management.

Studies have confirmed that differences in performance by crews with similar configurations in equivalent conditions in the order of 30% are not uncommon.

In summary, maximising production is achieved by getting the most out of each contributory phase from stump to truck. It is important to identify each aspect of the job in each new block to:

- Note aspects limiting production.
- Allocate resources to remove/reduce bottlenecks.
- Monitor the job regularly and be prepared to move people and equipment around as resources, environmental and stand factors change.

PRODUCTION RECORDS

Records of production can be used to assist in:

- Reaching and maintaining a target production rate for both crews and individual machines or operators.
- Improving production:
  - Clear targets help crews improve production;
  - Records help individuals monitor and improve their own performance.
- Estimating production rates in new contracts or blocks. Forestry companies have detailed records or production models to help them estimate production rates. Without good records of their own, contractors cannot put forward a good case when negotiating production targets.
- Knowing why you are going broke before repossession occurs.

Types of Records

Records can be kept to monitor production on an hourly, daily, weekly or monthly basis and to highlight production differences caused by different crop and terrain characteristics, haul distances etc. Records can be:

- Detailed, such as number of pieces hauled per drag counted, or haul distances measured, or tonnes per machine hour calculated.
- Gross (or shift level), where production per day is calculated by dividing tonnes per month by the number of work days per month.
- Electronic data retrieved from equipment computer systems available with most late model machinery can greatly assist in determining key inputs / outputs e.g. volume through a processor head, fuel burn/machinery utilisation.

There can be any number of variations within these broad outlines relevant to a particular contractor. The main factors or variables to measure production which will be discussed in the following pages are:

- Average piece size.
- Number of pieces extracted.
- Number of drags.
- Number of truckloads.
- Labour and machine hours on the job.

What information does the Forest Manager provide?

Commonly the Forest Manager will provide the contractor moving to a new harvest area or forest with a prescription or a logging plan detailing:

- Nature of the operation.
- Production expectations and log grade specifications.
- Legislative requirements (identification of hazards, environmental issues including waahi tapu considerations).
- Stand data, commonly including piece size (in m3) and stocking (number of stems per hectare) from forest inventory data.

This information should be retained by the contractor as an important record to document instructions and expectations. If disputes arise, say as to environmental or recovery issues, such information can be of great assistance.

MEASURING DAILY PRODUCTION

Reduced to the simplest definition, the basic unit of measurement is tonnes. In some circumstances this may be volume or value-based as discussed earlier. Calculations for measurement can be as simple or complicated as desired.

To be effective and able to be acted upon any production information must be:

- Available promptly.
- Easily recorded.
- Monitored and reported to the crew.
- Able to be affected by crew actions.

While any amount of detailed analysis can be undertaken, at its simplest and most practical, expressing the production target in daily (or hourly) terms is very straightforward:

Where a = Target in tonnes/day e.g. 260

b = piece size e.g. 2 tonne

Target in stems per day, c = a/b i.e., 130 stems/day

Where c = number of stems/day e.g. 130

d = stems per drag (cycle) e.g. 2

Target in drags per day (cycles per day), e = c/d i.e., 65 drags/day

Where e = number of drags/day e.g. 65

f = machine hours per day e.g. 7 PMH

Target in drags per hour, g = e/f i.e., more than 9 drags per machine hour

These calculations can be reworked to highlight whichever production variables you wish to focus on, in this example stems and drags. The required data can come from keeping good daily records using templates and is summarised in the "*production*" tab in the costing model. That can used on a daily basis and converted to a weekly/monthly spreadsheet if required.

Simple measures can be put in place to provide immediate feedback to the crew, including:

- Piece size.
- Number of stems extracted.
- Number of drags.
- Number of truckloads...etc...

Making sure the crew know what to target they are aiming for and providing prompt feedback is essential. At a basic level, a whiteboard in the smoko container tracking daily production (either stems or possibly loads) to target is a simple and visible tool for the crew.

Piece Size

Based on the prescription information and/or contractor records an assessment of average piece size can be determined. For example,

total tonnes extracted ÷ number of full stems = average piece size (t)

While piece size fluctuates in different parts of a block, information such as number of stems provides immediate crew feedback as to performance.

Number of Stems Extracted

As discussed earlier, optimising the size of each drag (payload) is a key to crew productivity. The number of stems extracted per drag can be recorded by either machine based counter or notebook/computer and then totalled to give stems per day. The total number of stems extracted per work break or per day can be recorded against target and posted on a whiteboard in the crew van or smoko hut to provide daily feedback. This can be graphed and compared against target so that any daily trends are apparent [Figure 2.1]

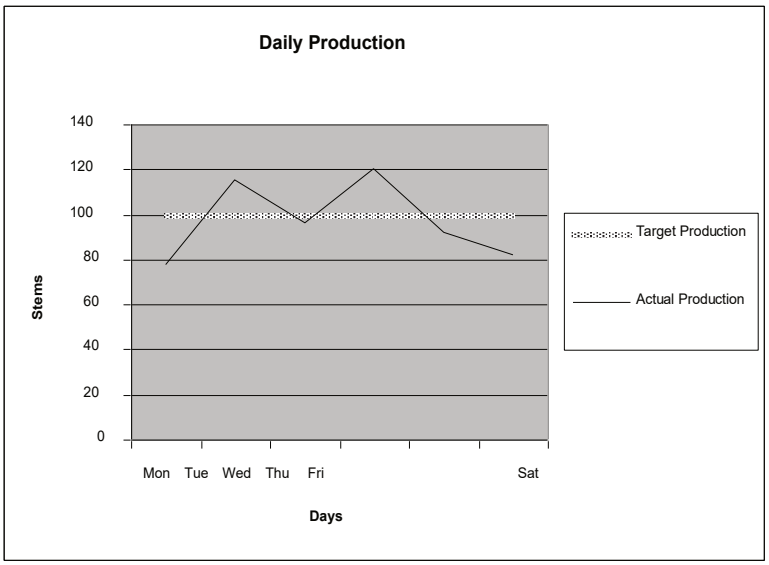

Figure 2.1: Daily Stem Productivity

Number of full stems per drag can drop if:

- Conditions don't allow for pre-bunching.
- Poor felling technique results in poor presentation.
- Piece size is reduced due to excessive breakage due to poor felling or poorly formed trees.

Number of Drags

Record the number of drags (or cycles) per hour and drags per day as a measure of productivity. Once again this can provide immediate feedback to both operators and crew. The number of drags per hour is influenced by the extraction machine capacity, haul speed and operational delays like waiting for wood, or landing interference.

Number of Truckloads

Many crews find it simpler to record the number of trucks loaded out per day. However, this does

not give an accurate production measure unless changes in log stocks are taken into account.

Example:	Estimate of loads on skid at end of day (closing stock)	6
	Plus number of trucks loaded out during the day	+ 8
	Minus estimate of loads at start of day (opening stock)	–(5)
	Equals Daily production	= 9

To convert truckloads to volume multiply by an estimate of the average weight of each truckload. To improve reliability of estimate check against monthly totals and adjust as necessary or refer to weighbridge dockets or on-board truck scale readings.

Any of the above measures can be easily recorded on a simple form or a *daily target* spreadsheet and then represented on a graph. Studies show that visual representation is more effective than figures, i.e. a picture is worth a thousand words, such as outlined below.

WEEKLY / MONTHLY PRODUCTION

What information should be collected, how should it be collected and what can be done with it?

Whichever unit of immediate measurement is most relevant to the crew can be used – using the previous example, counting the number of stems and multiplying by the prescription piece size (e.g. 2.0 tonne) can provide immediate feedback to the crew, and then be updated daily.

All of the above information can be accumulated to weekly and monthly reports. The previous graph showing daily production of stems can be totalled to give average weekly production which can then be graphed against target. For longer-term reporting instead of using weeks, you can replace the weekly column with one column per month, [Figs. 2.2 and 2.3].

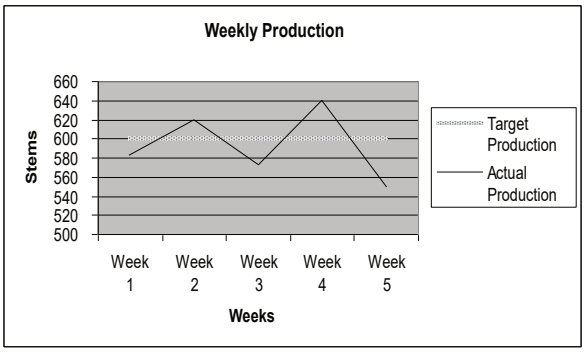

Figure 2.2: Weekly Stem Productivity

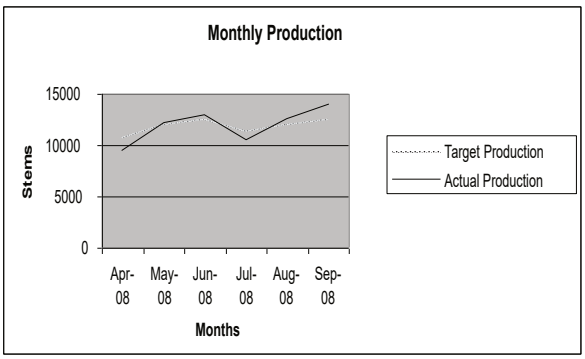

Figure 2.3: Monthly Stem Productivity

Most of the above information is useful for benchmarks and for future costing exercises. The value of weekly and monthly records is not so much to monitor the way the operation is running, but to establish benchmark figures which can be used to compare trends and also evaluate actual production levels against targets. Remember that production variance, be it good or bad, is showing up in next month's cash flow!

The ultimate measure is the monthly invoice which will record the total tonnes produced. This can be used to cross check to the daily/weekly internal estimates to assess reliability, and if necessary modify the calculation process:

- If your target was 200 tonnes per day, on a 20-day month, production should be 4000 tonnes.

- Your daily piece count was 105 pieces and prescription piece size 2.0 tonne, you would expect a payment of 4200 tonnes, i.e. 20 days x 105 x 2.0.
- Stocks at the beginning and end of the month were roughly the same.
- But your actual payment was for only 3900 tonnes.

Possible reasons for this include:

- Your piece count was inaccurate.
- Your prescription piece size was wrong.
- Your calculation of stocks was incorrect.

If you do not record this information during the month then you cannot consider what, if any, area requires further investigation.

Machine Hours and Labour Worked

All costings are based on machine hours and worker-days. By having the monthly production data available and recording machine hours, worker-days and productivity, you have a powerful tool to assess your operation against your costing and identify variances.

The number of machine hours per day is influenced by total shift length and the amount of downtime. To be of value, machine hours must be collected consistently by the machine operator on a daily basis, by recording hour clock, or other datalogger. Modern machine computer systems will also assist. Downtime due to mechanical breakdown and the cause should be noted. This can be very useful for identifying constraints on production and perhaps considering machine replacement programs as data are accumulated over time.

Labour hours are readily available from payroll records. Machine hours can readily be determined through either computer downloads (where available) or alternatively simple recording of month opening/closing machine hours can then be recorded in this "*machine hour*" spreadsheet. This process will enable you to consider your performance against target. Remember, what gets measured gets managed.

You are then in a position to consider actual machine utilisation to average utilisation allowed in your costings. And then with the preceding information against production i.e. have you needed more, or less, actual hours to achieve your production goals. Refer also further comments below.

A drop in machine utilisation could be caused by mechanical delay (more breakdowns than normal), or personal delays (like longer smoko breaks). This is also an important measure to use when considering machine replacement decisions (*Chapter 4*).

By building up a history of actual performance you can assess whether you need to alter your target setting process, and therefore rates required. Alternatively, by identifying variances in actual inputs compared to costing inputs you can assess what changes or remedial actions may be required. For example:

- **Tonnes produced** - Tonnage on your monthly invoice should be reconciled to your copy of the weighbridge dockets. Just because something has been produced by a computer does not mean it is automatically correct! One missed 30-tonne load at a rate of $35 is $1050 which over the course of a year is $12,600.
- **Work days -** If you have been unable to produce for one day a month, perhaps due to weather, road conditions or other reasons, that is a significant loss of production. You need

to record expected days lost per month, and if you lose a day consider how it might be made up, perhaps by working a Saturday. While missing a day will mean lower direct costs, like fuel that is not required, you still have machine payments and other overheads to pay, and possibly even wages. A day in lost production can quickly add up to a significant effect on your cash flow.

- **Machine hours -** These need to be compared against the costing. Have you done more or less and how does that compare to target?

Using the above information, which is all readily available, you can determine some key benchmarks, as below:

Average tonnes per work day = Tonnes per month ÷ work days.

Compare this with target: are you exceeding target and improving profit, without increasing inputs, or the reverse? This information can be broken right down to tonnes per hour. Remember to reconcile your monthly payment with your production records – have you been paid for what you have produced?

Average stem piece size = Tonnes per month ÷ stems extracted.

The monthly volume estimates can be combined with the stems extracted records to update estimates of average piece size of full stems.

Average productivity in tonnes per machine hour = Tonnes per month ÷ machine hours worked.

An accurate estimate of productive machine hours is essential for costing your operation and comparing actual against target. Identifying long-term trends can help in determining appropriate benchmarks and whether you are realistic in your costing.

For example, if a skidder was expected to produce 200 tonnes per 7-machine-hour day, in a 20-day month it should have worked 140 machine hours and produced 4000 tonnes, or 28.5 tonnes per machine hour.

If actual production was 4100 tonnes, and hours only 130, then productivity is 31.5 tonnes per productive hour, or 11% higher.

By building up a database of information you can assess the impact of different operators and operating conditions such as terrain, haul distance etc on machine productivity. The greater your database of historical records the more confident you can feel in future costing and rate setting negotiations.

The next part of this chapter on setting up a system includes sample reports that may be of assistance. Over time these simply collected records will become essential both for job costing and for use as benchmarks. Such measures as productivity per hour, machine utilisation, cost of skidding, loading, labour and fuel per tonne can be used either as goals to be improved upon or warnings if variations become apparent.

PRODUCTION RATE ESTIMATION – AT THE STAND LEVEL

When estimating production rates for rate setting, production studies undertaken in specific conditions are not of much use because there can be large variations between the characteristics of one block to another.

The best method is to isolate an area and record the stand and crop characteristics such as

- Crop type (tree form, branching, understorey).
- Terrain (slope, ground condition, soils).
- Average haul distance to skid.
- Tree size.

then record the total tonnes of wood harvested from that area (from weighbridge dockets) and divide by the number of crew workdays it took to complete, to get production rate per workday.

For example 1: 100 tonnes in 5 workdays, is 220 tonnes per day.

This production is then related to the block characteristics listed above. Over time, contractors can build up a permanent record of the production details for each harvest area. These production records of past contracts enable accurate production rate estimation for planning, tendering and negotiating contract rates for jobs that can be clearly defined as having a set of similar characteristics.

Average Haul Distance

The average haul distance or AHD should be part of the prescription or harvest plan given to the contractor before they start each harvest block. The harvest planner will have calculated AHDs in planning skid and road locations.

Harvest planners commonly use computer packages to help calculate average yarding distance. For a roughly circular setting with a central landing, or a setting where the landing is on the boundary of the block as shown in Figure 2.4, the AHD is approximately 0.67 times the average distance from the landing to the boundary lines (average of all distances 'a' or 'b').

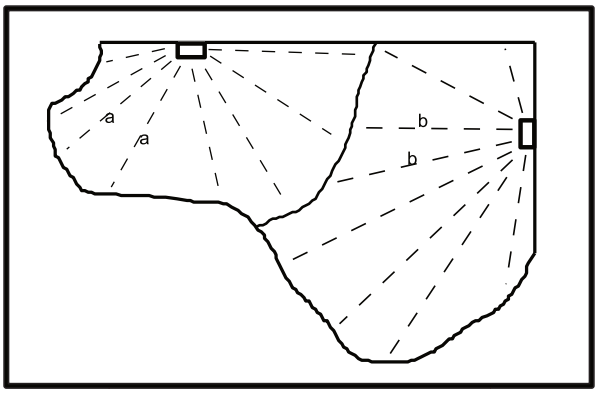

Figure 2.4: Example Harvest Plan

On an operation which is working to a continuous roadside landing (a rectangular or square setting), the AHD is half the maximum distance.

To this number a factor must be added called the "wander factor", to compensate for the fact that skidders or tractors do not haul in a straight line to the landing, due to stumps, broken terrain and other features. This factor can be determined via rangefinders and with assistance from field observation and is sensitive to terrain.

If the results of the calculation do not look right for a setting, the average yarding distance can be checked roughly by following the skidder a couple of times with a tape measure or hip chain. This distance will be a measure of slope distance and wander which is likely to be slightly different from AHD measured from a plan. Whether completely accurate or not, this is a reasonably consistent measure which will be useful for comparing different blocks.

Set Up a Monitoring System

This handbook strongly recommends that contractors adopt a detailed production record keeping system. For the best results, contractors should use their experience rather than guidelines, and their own information rather than rules of thumb. The previous examples provide templates of the type of production records that may assist and can be readily adapted for particular requirements.

Whatever system format you use, it is most important to formalise who will record the information, how it will be recorded, how often it will be collected, and what you will do with it. The logic of your system will become clearer as you commit ideas to paper and all involved must be clear as to what they are being asked to do and why. Often, the more responsibilities people have, the more job satisfaction they gain.

Management of plant/machine operations has become ever more complex. As production volumes have increased, required detection and response time for forestry contractors in terms of any shortfall in productivity has reduced.

Efficient measurement of production and associated costs should be an everyday routine to enable timely response if the operation starts to fall short of budget. With increasing mechanisation day rates and associated production requirements have commonly increased. This means impacts of over/under production are rapidly compounded and can significantly impact financial viability.

Data collection and visual presentations (graphs or charts) comparing projected production targets with actual figures allow easy analysis of the highs and lows of daily and weekly performance. Using these tools, contractors can very quickly identify the variables that make or break projected targets and be better able to take necessary corrective action to remedy any shortfalls. Remember that the best machines will not achieve the best result if the underlying management systems are not in place.

TROUBLESHOOTING

What to do if monitoring shows low productivity.

Check:

- Absenteeism (have you had a full crew every day?).
- Weather (scheduled hours, early knockoffs).
- Productive hours per day, machine utilisation %.
- Machine availability (refer repairs and maintenance records).
- Trucking (number of trucks loaded, stock levels).
- Ground conditions (effect on extraction machine or loader).
- Engineering e.g. provision of spur roads.

If these factors are normal, check to see if the operation is constrained due to felling, extraction or skid issues.

Felling Issues

If there is insufficient wood presented for the extraction operation this often comes down to either:

- Faller availability, if manual.
- Machine availability (reliability).
- Planning issues e.g. refer previous comments balancing short / long pulls.

Solutions might include:

- Increase number of tree fallers.
- Extracting from one close and one more distant felling face.

Extraction Issues

When production is limited by the extraction unit (volume per drag is too low or cycle time is too long). Solutions include:

- Pre-strop to reduce hook on time.
- Add more strops to increase payload.
- Improve tree presentation by fallers/felling machine.
- Improve operator training to use the machine's true capacity.
- Haul distance is too long, consider options to balance with shorter pulls.

Skid Issues

This is where skid issues constrain the extraction machine delivery of wood. This is caused by either:

- Not enough skid workers.
- Too many sorts for efficient operations.
- Skid too small or a poor layout.
- Stems require extra trimming (trim in bush or use delimber).

Productive Efficiency

Efficiency is a measure of the ratio of the useful output to the total input in any system. It is important to understand the relationship between what inputs (workers and machinery) are actually used in the operation compared to those allowed in the costing.

A common scenario when underproduction is occurring is to throw more workers or machinery at the operation. If this only enables the contractor to achieve target, this just becomes additional cost, and it does not truly improve profitability.

For example, an additional worker with saw costing say $400 per day, totals almost $92,000 per annum extra cost (more if either another machine or longer than costed hours on current machines)which means either the original target must be increased to cover this cost, or comes off the contractor bottom line.

Because of the nature of the industry and type of work required, production can vary significantly month-to-month or block-to-block. It is important therefore to monitor inputs (costs) and outputs (production) regularly and look at average long-term results, while also being aware of short-term variations.

CHAPTER 3

FINANCIAL MANAGEMENT

CHAPTER 3

FINANCIAL MANAGEMENT

INTRODUCTION

The better you understand your business, the easier it will be to make more money and improve cashflow. Management decisions rely on a sound understanding of the financial drivers in your business and the implications of any changes to these. Business owners who fully understand and can interpret their numbers create a strong foundation on which to effectively manage their business moving forward.

Financial management is using records (accounts), together with estimates of the future (forecasts) to form a picture of the financial shape of the business and enable decisions to be made about the future of the business. The key to financial management is good planning. Planning for the best and worst case scenarios from the outset is all about structuring your financial affairs in the most advantageous way possible, to minimise risks and liabilities.

New Zealand is one of the simplest countries in the world to start a business. Unfortunately, many new businesses fail prematurely, within three years of start-up. Experience suggests that this is not because of the operational capabilities of these businesses, rather the lack of financial information and management skills.

The objective of this Chapter is to introduce topics of importance in financial management to provide contractors with a basic understanding of relevant issues.

The Chapter covers the following topics:

Record Keeping

Reporting Systems

Budgeting and Cash Flow

Other Assistance Your Accountant Can Provide

Financial Accounts

Taxation

Cash vs Profit

RECORD KEEPING

Record keeping, one of the least interesting business activities, is also one of the most crucial for its ongoing success. As soon as you decide to go into business it is important for you to start keeping your records as it's much harder and more costly to work backwards at a later date. Although there are legal reasons for keeping accurate records, there are also good financial reasons to do so.

You can't manage what you don't measure!

To manage a logging business, a contractor must collect records for the following reasons:

- To fulfil statutory requirements as quickly /cheaply as possible.
- To back up what is in your accounts for tax purposes.
- To assist in the management of the business. What you can measure you can manage. You cannot control your business if records are inadequate.
- To enable information to be extracted to monitor the past performance of the business,

the current business performance, and also specific analysis of expenditure and income as required.

- To be used to assist in planning for the future. Records measure the past, but of particular relevance is the information they provide to assist in looking at the future (budgeting and cash flow forecasting, job costing and tender preparation).
- To ultimately save you time and money.

In *Chapter 2*, the records needed to monitor the physical operation and assist in assessing production rates were discussed. The other records which need to be kept are financial.

The key to all record keeping is to design the simplest system possible and to integrate physical and financial record keeping. The best way to do this is to establish the physical records you will maintain and then go to your accountant, explain your operation and those records to them and your requirements and let them design the financial system around that.

Decide which parts of the system you, your bookkeeper or your accountant will operate based on the level of skill / experience required. Ensure there is relevance to each record or analysis that is carried out, because all activities take time and cost money. Ensure accurate recording because management decisions made are only as good as the information available.

Note: That all records must be kept for at least seven years to comply with Inland Revenue Department (IRD) requirements.

Types of Records

Records may be retained as hard copy or in electronic format. The traditional Ute glovebox (or floor) is not sufficient! Either a proper manual filing system or nowadays systems such as *hubdoc / Xero* and other similar suppliers allow for immediate electronic capture and permanent saving of essential information.

Invoices and Statements

These are the basic raw data from which your business can be financially traced. They should be retained and filed / saved for easy retrieve as required.

Bank Transaction Information

Bank transactions are the key source of information used for the preparation of financial statements and GST returns. Most commonly available electronically now via bank feeds, which transmits the information directly into the accounting system that you are operating.

Machine Log-Books

These should show hours, fuel and oil consumption, repairs and maintenance details. Refer *Chapter 2*.

Employment Agreements

Anyone employed after 12 October 2000 must have a written employment agreement, whether it be an individual agreement or a collective agreement. There are rules governing employment relationships in New Zealand under the Employment Relations Act Refer *Chapter 5*.

Wages Records

These must be kept accurate and up to date or penalties can be imposed for not doing so. An employer has tax responsibilities relating to staff, including ensuring new employees complete a tax code declaration on commencement of employment (IR330), making correct salary deductions (tax, ACC and Kiwisaver), and regularly filing employment information (electronically) and making payment with the IRD on a payday basis.

GST Returns

Copies of each return, together with supporting tax invoices, calculations, and work sheets should be maintained. GST returns and any payment must be filed with the IRD by the scheduled due date.

Finance Papers

For example, Hire Purchase and Loan documents, Sale and Purchase Agreements, Lease Agreements, etc... should be filed for easy access and security.

Practical Considerations

There are a wide range of regular administration and financial issues every business must face. There are two ways to look at this:

(i). As an onerous, time consuming paper war, to be ignored as long as possible and dealt with at the last minute (or beyond); or

(ii). As an essential part of business integrated into the efficient management and running of the business.

Regardless of who performs the bookkeeping function, certain principles apply and all records should be obtained, kept and stored and be retrievable.

Records Obtained

- Always obtain a tax invoice to support any transaction.
- If paying cash, obtain dockets / invoices which clearly identify the purchase. And make sure you tell your accountant about this, as otherwise they may be excluded from your claims.
- Where possible, request invoices in electronic format for ease of record-keeping. Alternatively, do not leave invoices or dockets lying around in a vehicle or in pockets of clothes where they can be easily lost. Store them in one place (e.g. glove box of vehicle) before transferring them to a file in the office. Alternatively, there are electronic apps available that allow you to take photos of receipts/documents and send them direct to accounting software, eg: *https://apps.xero.com/nz/app/receipt-bank*
- Electronic or hand-written notes are required when buying second-hand goods for which there is no formal documentation.
- All records should be checked and (if required) additional notes maintained while it's fresh in your memory.

Records Kept and Stored

- Business records must be kept for a minimum period of 7 years. Ideally, electronic records should be backed-up regularly and a copy of the back-up stored at a secure location away from the day-to-day office.

Records to be Retrievable

- This means saving / indexing in some way e.g. alphabetically, monthly, yearly, to enable quick and easy retrieval when required.
- A plan of how you will retain your records in a methodical way for easy retrieval should be put in place from the outset.

Other Information for your Accountant

Your accountant will require other information for your accounts which includes:

- Hire Purchase / Term Loan documents in relation to any new business-related loans or asset purchases during the year.
- Lease agreement documentation in relation to any business-related leases for land, property, vehicles, or plant and equipment, during the year.
- Copies of GST returns filed during the year, together with appropriate working papers supporting the calculations, for those returns that you have filed yourself.
- Details of total gross wages paid during the year together with total PAYE deducted and total non-taxable allowances paid.
- A detailed list of monies owing by you ("creditors") and monies due to you ("debtors") as at balance date, including details of exactly what each transaction was for.
- Full details of all insurance policies held. It is necessary for your accountant to be able to distinguish easily between business insurances and personal insurances and the various types under those two general headings.

Remember that it costs you money if your accountant has to chase information. Not only is the time spent in looking for this information costly, but even more costly is the fact that the job will have been stopped and started a number of times prior to completion, all of which results in unnecessary time and expense. Much of this can be avoided by effective use of various online recording systems as noted previously enabling authorised parties, including your accountant, to directly access much of the required source information.

FINANCIAL ACCOUNTS

At a practical level financial accounting involves producing two principal financial reports:

- Balance Sheet (or Statement of Financial Position).
- Statement of Profit and Loss (or Statement of Financial Performance).

These will be supported by various supplementary notes, including detailed asset schedules, summaries of liabilities like loans, etc...

The Balance Sheet shows what a business has (assets), what it owes (liabilities) and the investment of the owners of the business (owner's equity). The Balance Sheet is a record of your financial position *as at a particular day*, usually 31st of March each year, or if accounts are being prepared monthly, the end of the month. It reflects where you are at a point in time.

Assets include obvious items such as machinery, but also items such as money due to you at balance date, your bank account (if in credit), etc... Liabilities will include debt on machinery, money owing to creditors, bank overdraft, GST / tax owing, etc.

The Statement of Profit and Loss is a summary of business operations. It records the normal day-to-day activities of the business, such as income and operating expenses *over a period of time,* commonly a month or a year, contract receipts, wages, fuel, repairs, etc... It also adjusts for depreciation (refer *Chapter 4)* and the interest content of loan payments, so it is not just a record of cash in / cash out. If the Balance Sheet tells you where you are at a point in time, the Statement of Profit and Loss tells you how you got there (since the last Balance Sheet was prepared).

These documents are the foundation of most finance applications (refer *Chapter 4*). While for tax purposes they have to be produced accurately at year end, interim reports throughout the year produced included along with your GST preparation can also be very helpful.

Analysis of Cost and Profit Centres

After preparing a basic level of financial reporting, it is useful to consider ways in which this information can be presented to be of most assistance to you.

Where multiple machines are being used it is possible to separate the basic operating costs applicable to each machine. Items such as repairs and maintenance, ropes, and tyres / tracks should be very easily identifiable. In some instances, depending on the analytical efforts of the contractor, it can also be quite possible to separate fuel and oil by machine.

Having such information available allows a contractor to better assess the true costs of operating his machines. This information can be very useful both in terms of tendering for future work and making machinery replacement decisions.

The concept of identifying basic operation costs and income can also be applied to a multiple-crew operation. Assuming income from each operation is separately identifiable, then the direct costs incurred in earning that income can be applied against it. This enables the direct profit / loss from each operation to be identified and monitored. Again, this can assist in tendering for new work, but of equal importance, in ensuring there is no element of cross-subsidy, like one crew or operation propping up another.

While this type of report can be relatively easily produced, the result is only as good as the information provided. Therefore it is up to the contractor in the first instance to provide the appropriate information to specifically identify what the expense is for – in the case of fuel, to provide a log from your metered fuel tank as to how much fuel machines are using, or to separate and identify repair bills to specific machines.

Another report which can be generated is a comparison with statistics from other contractors showing the relative proportions of each category on their cost structure. This information can be useful in highlighting reasons for poor performance. If the "average" ratio of fuel costs for a motor manual ground-based operation is say 15%, but yours is running at 20% this may provide the basis for further enquiry as to your operational and production efficiencies, the possibility of thefts, or perhaps inadequate costing.

Always consider the cost / benefit of the information process, i.e., splitting repair costs by machine might be quite straightforward, but analysing fuel or spare parts to each individual machine may involve more work than the benefit obtained.

Note:

The preceding pages emphasise record keeping in relation to financial reporting. Equally important to the contractor are non-financial records (Chapter 2), such as labour hours, piece size, actual production, notes on weather / terrain, machine hours, etc. The keeping of a simple daily diary or use of the templates will assist your management and understanding of the physical aspects of the operation and provide information for negotiations with forest company managers. Ultimately your financial results reflect the outcome of these operational activities.

REPORTING SYSTEMS

To be effective it is critical that practical reporting meets the following criteria:

- Relevant
- Timely
- Accurate
- Cost effective

A contractor also needs to consider their own capabilities in dealing with financial information, or resources available to them, such as spouse or paid bookkeeper. And if they do have the capacity to deal with financial reporting, is that the best use of their time? What is the true cost-benefit of doing a lot of this work in-house, versus contracting out?

There is no right answer to this, every situation will be different, but we suggest this should be discussed frankly with your accountant to best determine what is the appropriate approach for your business.

Accounting Software Systems

Properly maintained accounting software systems (previously manual / computerised cashbooks), has for many years been an invaluable source of information, both for contractors and their accountants. The emphasis here is on **properly maintained**.

Unfortunately, what many contractors regard as "properly maintained" is not necessarily sufficient for the accountant, and can result in unnecessary extra time, expense and frustration for all parties!

For those interested in following their business finances in full detail on a day to day basis, online accounting software systems are definitely of assistance. These will help you follow your account balances, prepare GST returns and also provide periodic and year-to-date analysis of income and expenditure which are invaluable to you in managing the business.

Before buying any financial software talk with your Accountant, as there is a well-known saying in financial circles, “garbage in garbage out”. It is also worth talking to someone else who is using the same programme to find out what it did for their business, how they found learning to use the software and the level of support that they received from the service provider who sold it to them.

Remember the binary law of computing: it will do half as much, cost twice as much and take twice as long to learn as the salesman told you!

Monthly Reporting System Using Xero / MYOB or BankLink

For those who don't have the time / skill / inclination to use accounting software systems, accountants for many years have been preparing periodic or interim reports for clients during the financial year. The benefits of periodic reporting may well outweigh the costs involved, particularly if systems such as Xero or BankLink are used.

These systems enable banks to input your bank statement information directly to you / accountants, in electronic form. Your bank statement information is then loaded directly into your accountant's computer system.

Benefits include:

- Real-time information.
- Accuracy. No potential for double-up data entry.
- Security. The electronic transmission is 100% secure.
- Eliminates need to take your receipts and bank statements to your accountant.
- Cost effectiveness (better value for money on accounting services).
- Assists GST preparation.
- Performance monitoring (up-to-date analysis of results, providing information on trends, for banks and finance companies, etc).
- Better planning of cash flow (profit / tax trends identified during the year rather than 6 months after year end).
- Eliminates time, effort and cost to contractor in setting up, implementing, maintaining and training in an accounting software system of their own.
- Regular reporting enhances business monitoring and tax planning.

This enables accountants to be more efficient and cost effective by:

- Using appropriate specially written programmes to enable extraction of GST information and analysis.
- At the same time a simplified monthly performance report can be prepared for the contractor.
- Processing information on a monthly basis assists future time-saving by obtaining information from contractors while it is still current, rather than having to chase it at year end when it has been forgotten / mislaid, with consequent (expensive) delays. Once a month (or bi-monthly) the accountant can look at the client's transactions, which are already coded.

All that is required for contractors to use this system effectively is to ensure that:

- All business transactions pass through a bank account that is registered with Xero / BankLink. If more than one account is involved then all must be registered.
- Accurate information is provided to the accountant with respect to any bank transactions that cannot easily be classified from the details on the bank statement. Rule number one here, when in doubt ask, don't guess! Backtracking by accountants to correct miscodings can become expensive.
- Details of debtors / creditors are kept if preparing GST returns on an invoice basis. In this case, photocopies of invoices that are dated within a GST return period but have not yet

gone through the bank account (payments not yet made or received) should be sent to the accountant.

Much of this essential information can now be made available online in real time if using appropriate systems here.

TAXATION

Many contractors new to business are confused by the terminology and implications, the below provides a brief overview of some of the common tax types to assist.

Pay As You Earn (PAYE)

PAYE is the tax that you deduct from your employees' salary or wages and pay to the IRD on their behalf each month. In April each year, the IRD publishes the PAYE deduction tables (IR340 and IR341) containing the current deduction rates. These show you how much to deduct from each employee's pay based on their respective tax code.

From 1 April 2019 employers are required to use payday filing. This means that, for every payday after 1 April 2019, you:

- File employment information every payday.
- File electronically (from payday compatible software or through myIR) if your annual PAYE / ESCT is $50,000 or more.
- Alternatively, use a PAYE intermediary (provides payroll services to an employer) to process and file your employment information for you.

Payday filing will become a part of your normal payroll process.

The due date for actual payment of PAYE is the 20th of the month (or 5th and 20th of the month for large employers who file twice-monthly.

Further details on PAYE, including information booklets from IRD can be obtained *here*.

KiwiSaver

As an employer you are required to make KiwiSaver available to all employees. You need to:

- Check whether new employees are eligible to join KiwiSaver.
- Check whether new employees should be automatically enrolled. In general unless employees specifically opt out (within 14 days of employment) they are automatically deemed to be in KiwiSaver.
- Give the KiwiSaver Employee Information Pack (KS3) to:
    - New employees who qualify for automatic enrolment, and
    - Existing employees who want to opt-in to KiwiSaver.
- Provide IRD with information about:
    - All new employees who qualify for automatic enrolment, and
    - Eligible employees who want to opt-in to KiwiSaver.
- Give new employees a written statement and product disclosure statement if you have an employer-chosen scheme.
- Contribute to your employee's KiwiSaver scheme of complying fund.

Further details on KiwiSaver and necessary forms and guides can be obtained *here*.

Employer's Superannuation Contribution Tax (ESCT)

All employer contributions paid to a superannuation fund, including KiwiSaver schemes and complying funds, are liable for ESCT. The exception to this if the employee and employer have agreed to treat some or all of the employer contribution as salary or wages under the PAYE rules.

There are two options for calculating and withholding tax on employer contributions:

- If the employer and employee agree, the amount of employer contribution can be treated as the employee's salary or wages and PAYE must be withheld.
- In all other cases, EXSCT must be withheld.

Goods and Services Tax (GST)

Any business with a turnover exceeding $60,000 per annum must register for GST. GST is usually completed over a two-month period. Anyone can elect to file on a monthly basis (compulsory if turnover exceeds $24 million per annum), or if turnover under $500,000 per annum can opt for 6-monthly.

If turnover exceeds $2 million per annum (or is projected to do so) then registration on what is called an invoice basis is required. This means you have to account for your debtors and creditors changes at each return. This is considerably more complicated than the alternative payments basis where GST is only accounted for on a "cash in / cash out" basis.

Two-monthly GST is the suggested and preferable period for both cashflow monitoring and tax planning reasons. There are other GST options for filing (i.e. invoice basis, six-monthly and hybrid option) which depending on your income level could be an option, so talk it over with your accountant.

In many cases GST is calculated by your accountant as it is relatively cost effective, especially where accountants and contractors are using systems such as Xero / BankLink.

To assist the calculation of GST, contractors should also supply information to their accountant, such as copies of invoices for asset purchases, any loan, HP or lease agreements, insurance policy documents etc on a regular basis. This information will also help the accountant run management reporting for you and complete accounts more efficiently at year end.

Some contractors calculate GST using their in-house accounting software systems. A copy of the GST return, together with the working papers for the calculation of the GST, should be provided to your accountant to assist reconciliation of GST at year end. These records are also important, should the IRD audit the GST return.

While the completion of the GST return should not be a time-consuming operation, many contractors spend unnecessary time in completing the calculations. Time may be better spent managing the operation and meeting the demands of your customer(s) – the forest owners / managers. Using your accountant, and systems such as Xero / BankLink, can reduce time spent on book-keeping and to improve the quality and timeliness of business reporting.

Further details on GST may be found *here*.

Provisional Tax

A mistake that many businesses make is not considering their tax obligations until they fall due – this can often prove to be very expensive and also very disruptive to cash flow. The secret to keeping your tax situation under control is to set up good systems when you first go into business and keeping records up to date. Tax is one area of business where it makes sense to seek professional help from an accountant or tax agent.

Provisional tax is a way of spreading out income tax payments for a business, so that the business does not face one large tax bill at the end of the year. Provisional tax payments are spread over the year in three equal instalments depending on your balance date (usually 28th August, 15th January, and 7th May for a 31st March balance date).

The amount of provisional tax you need to pay is based on your expected profit for the year. The tax is called 'provisional' because the amounts are only an estimate, until the actual net income is determined at the end of the trading year.

In the year the business starts it has no previous history upon which to base provisional tax calculations and hence no tax payments have to be made. Accordingly the first year cash flow may look unusually good, but remember, it's not all yours, you need to be planning for second year of operation, when the business must both pay catch up on that first year (called terminal tax) plus pay provisional tax payments for the 2nd year.

Careful cash flow management and liaison with your accountant is recommended to avoid problems, as many new businesses get into serious difficulties, and even fail if not planning for these tax commitments appropriately.

Further details of payment dates for standard balance date taxpayers (31 March) can be found *here*.

Terminal Tax

Terminal tax hopefully is not terminal to your business! This is the result of the difference between the total tax on the actual net income calculated and the provisional tax paid during the year. Monthly management reporting and monitoring will help to give advance warning of what this difference may be.

There are several options to look at tax timing payments but in general the "standard" option is the simplest and safest. However as always in these areas we strongly recommend you get accounting advice appropriate to your circumstances.

Sometimes unfortunately taxpayers cash flow does not enable them to meet commitments on time. This can incur significant penalties and interest charges. We strongly recommend you talk to your accountant in those circumstances as there may be options available to minimise these costs by use of what are called tax intermediaries.

Terminal tax for standard balance date taxpayers is payable on either the 7 February or in many cases if the going through an authorised tax agent such as an accountant can be extended out until 7 April.

BUDGETING & CASH FLOW

Cash flow is the life-blood of any business. Lack of cash flow forecasting is the single largest problem small businesses face. Not enough businesses map out their expected cash flow, and this affects their survival in a challenging economic climate. A good plan will help you to think analytically about your business and consider different approaches as to what works well and what doesn't. Businesses planning only once a year have a 36% survival rate over five years compared with those planning monthly, which have an 80% survival rate.

Budgeting for a logging contractor consists largely of two areas:

Machine rate and job costing calculations as covered in *Chapter 1.*

- Budget and Cash flow forecasting.

The steps undertaken for the preparation of contract costings and previous year's accounts will provide much of the basic data needed for budgeting.

There is often confusion about the difference between a costing, which you may have used to assist in getting the work or agreeing the rate, and your cash flow. One thing which you may be absolutely assured is that your costing figures **will not** reflect your actual cash flow.

A costing is designed to calculate a fair rate for both the contractor and forest owner for work over a period of time based on standard industry parameters such as machine life, market interest rates etc... every contractor's particular circumstances will almost certainly be different. For example:

- Is your machinery new or used? (Used costs less to buy, but more to run and may produce less).
- Do you have a good or bad credit history which may influence your interest rate?
- Do you have a good or bad insurance claims record?
- How much are you actually borrowing – 90% or 10% for machinery?
- Do you prefer to do, or are you capable of doing, much of your own repairs?
- Costing smooth expenses over a period, whereas in reality expenses such as repairs, come in "lumps".

These are among many reasons why your actual cash flow circumstances will always differ significantly from the costing. One of the biggest tasks for a contractor is to make sure that the costing fits within their particular financial circumstances.

What is a Budget?

As a logging contractor you have tools and equipment to assist you in the physical process of the operation. A budget is a tool to assist you in the management of your business.

With the assistance of previous years' accounts, predict your production, income and expenditure, then put these together to see what the coming year's financial result could be. The purpose of this exercise is to make management decisions for the coming year and to compare the financial consequences of several choices.

When Should a Budget Be Prepared?

Most logging contractors make their projections of income and expenses at the time of contract negotiations and at the start of their financial year for the purpose of arranging seasonal finance.

Budgeting is useful at any time when decisions are being made that will affect the business financially.

PREPARING A BUDGET

There are various online budget tools available e.g. contractors on Xero can use their *tool*. And for those that prefer to have a simple manual overview of a generic budget process refer *here*. There is one column for the budget on the right-hand side and two spare columns. In these columns you can put the previous year's actual results, or the current year's actuals year-to-date and current year's budget (if you already have one). Your accountant will be able to take your current year's actuals and annualise them for you.

Income

Start with estimates of income and include any other income from other sources. It is useful if the headings used are the same as those used by your accountant. That way the reports of actual results regularly provided can be compared to your budget and cash flow predictions at a glance.

Operating Expenses

- As a starting point assume that those irregular costs, such as machine repairs and maintenance, tyres and rigging, for which hourly costs have been estimated in the job costing exercise, are budgeted for at those hourly rates. But as you build up historic data to look back on, you should tailor the budget to your actual circumstances or adapt around the age of your equipment.
- Another assumption is that budgets are exclusive of GST, as this is the same basis as the job costings and your financial accounts. GST payments are the same as returns when buying goods and services, but there is a two-month delay which may affect cash flows. Most cashbook programmes will have a facility to adjust for this on a regular basis so that your final cash flow figure is accurate and net GST payable is correctly allowed for. If not consult your Accountant.

Hire Purchase & Loan Payments

Hire purchase and loan payments should be obtained either from your accountant or your finance company, especially if the purpose of your budget is to look at the possibility of buying a new machine.

You can incorporate as much individual detail as you require by adding separate lines for each machine).

ACC and Tax Payments

Your accountant will give you an estimate of ACC payments due on wages, and shareholders salaries, provisional tax and terminal tax. This estimate can be taken from the previous year's accounts and the year's results to date, then adapted for any proposed changes.

Net Income

Total the income and the expenses and then subtract one from the other to obtain net income. From net income take principal loan / HP repayments, personal drawings, provisional and terminal tax payments.

Taxation Liabilities

The taxation will naturally be affected not only by the projected profit but also asset sales and purchases. Timing as per *previous advice*.

Summary

After completing this budget and tax calculation you will have an estimate of the year's financial result and the tax and ACC payments due in the following year given one set of actions. You may then repeat the exercise for different courses of action you face (say, with or without a new machine). Once you have decided on your direction for the year the next step is to prepare a cash flow.

PREPARING A CASH FLOW

The cash flow is a simple extension of the annual budget previously prepared into a monthly format. A cash flow takes the annual budget and spreads income and costs over the months those costs and incomes occur. When each month's income and costs are combined and added to a running total (which starts with an opening bank account balance), a forecast of the month by month bank account balance (i.e. the flow of cash) is obtained.

This is obviously of interest to your bank manager if you require overdraft or finance facilities, but is also of use to you. If during the year, actual results start to differ substantially from those you predicted, you can work out the reasons why in time to take remedial action.

In logging, the cash flow is predictably irregular! Total income changes each month depending on the number of days worked, production rates and changes in condition and sometimes rates from block to block. Expenses also differ each month, as some are related to production, some are fixed costs and some are annual costs.

Throughout the year, the contractor moves between a cash surplus and cash deficit situation (overdraft). The danger for any contractor is, without knowing what the cash requirements are over the next few months, in using an apparent cash surplus (perhaps to purchase equipment) only to find, in a short period of time that there is no cash to meet regular and previously committed expenditures such as taxation.

There really is no excuse these days with Internet banking and on-line accounting systems like Xero not to be up to date with your immediate cash position. Businesses however, continue to get caught short with supposedly "unexpected" events, which include delays in receipt of contract payments, balloon payments on HPs, tax commitments etc... None of which are really that "unexpected". The issue then becomes one of planning for these events by projecting what your forward position is likely to be.

The cash flow budget should be kept simple and be compiled with assistance from your accountant, if required. As you develop the cash flow, list any assumptions you make as to the timing of income or expenses and include in that summary any unusual receipts or payments. This summary is important when making a case to a banker or financier, who needs to know where figures have come from and the basis on which calculations have been prepared.

Previous updates to some models to assist are available *here*. There are many spreadsheet-based cash flow models available (as on websites of major banks) that will take a lot of the calculation work away from the contractor.

As always, "garbage in, garbage out".

Receipts

The most suitable place to start a cash flow budget is by listing the months of the year across the top of the page starting from the appropriate month. There is a column on the left for the budget totals already estimated that the cash flow will be based on, so start by listing those totals.

Then under the production section work out the number of workdays in each month. There will be fewer in December and January and probably fewer in wetter months. With the number of workdays, average daily production and the job or contract rate, work out production income for each month. Enter any other income in the month in which it will occur and then arrive at an income total for each month.

If you cannot estimate the average daily production and dollars per tonne for the next year because you may be in several different blocks, then use the total job cost per workday that you worked out in your costing (*Chapter 1*). This is the daily income you need to make your business work. Each time you start a new setting during the year you can update your cash flow using the target tonnes per day and the rate per tonne you are receiving.

Payments

Expenditure can be split into months by several methods.

- For fixed costs such as overheads, insurance, and possibly finance interest and principal repayments, just divide by 12 (months).
- For running costs such as fuel, oil, and repairs and maintenance, we suggest base on the ratio of workdays in that month. For example, the cost of fuel in a month with 20 work days out of a total 230 work days per year is 20/230 x machine fuel cost per year.
- Costs can be allocated to months by legislation, such as tax and (possibly) ACC payments.
- Costs can be allocated to months by estimation. For example, drawings could be $5,000 per month but greater at Christmas.
- Costs can be allocated to months by scheduling, such as a planned maintenance programme for major works.
- Wages can be accounted for pay by pay. For example; if wages paid fortnightly remember to account for wage payments based on some months have three pays and some have two. Equally allow for the impact of holiday pay in December / January.

When all income and expense items have been allocated into months, deduct total expenditure from total income (for the same month) to arrive at a monthly cash flow sub-total. Then add that month's sub-total to the opening bank account balance to get an estimate of the state of the bank account for that month and continue this process through the year. This process gives an estimate of how the bank account balance will fluctuate throughout the year - a cash flow profile.

Remember that the end-of-month balance shown does not reflect your position during the month. It merely provides a convenient cut-off point. When considering your working capital requirements you will need to consider whether / how much you will be in overdraft during the month and make arrangements with your bank to ensure you have appropriate credit available to pay your bills.

Notes on Cash Flow Preparation

- When budgeting, be very conservative and allow for the unexpected e.g., factor in expenses

at the higher end of the scale and income at the lower. You will often find that this will get your budget closer to what actually happens. Contractors tend to be eternal optimists!

- It is likely that your budget will not be within a few thousand dollars of what actually happens so do not work out your budget figures to the nearest dollar or cent. Round numbers to the nearest $100. Experience suggests that often there will be a swings and roundabouts process occurring i.e. under budget in some areas / over budget in others, at the end of the day it's the final bottom line that counts.
- When you first start budgeting keep everything very simple. You will be able to include more detail with experience.
- Put more effort into separating expenses into the correct month for larger amounts. For example wages are a large part of your expenses and will have a major influence on your cash flow, so it is worth putting time into being accurate, to the point of looking at wages pay by pay using your records. Items such as operating supplies are probably proportional to the number of days worked each month, but minor expenses such as these have such a small effect on cash flow that it is easier to just divide by 12 months.
- As an initial starting point it is suggested to budget R+M and rigging and tyres at the amount allowed for in the job costing (plus or minus). Having a mix of old and new machines, some with the R+M costing allowance higher than actual requirements and some with the allowance lower than actual will balance out overall. But every situation needs to be looked at on its own merits.
- There is always a time delay between producing wood and getting the funds in the bank for it, so the be cash flow should allow for this, especially over January / February period, often a tight period for cash flow.

Monitoring the Cash Flow

Having prepared the cash flow budget, negotiated the contract price and provided for cash requirements, the contractor is not yet finished. The cash flow budget is used in monitoring performance as the contract progresses. The actual receipts and payments should be summarised for each respective monthly or two-monthly period as soon as possible and compared to the budget, once-a-year comparisons are not sufficient.

The budget is no more than an informed guess at the timing and amount of receipts and payments. It is highly unlikely that it will run precisely according to plan. In particular, from month to month there will be significant variations and that is why it is important to have access to bank overdraft facilities to cope with these "blips".

This comparison by period will disclose variations, giving the contractor an early indication of arising problems, their cause and likely magnitude. You can then consider corrective action.

CASH VS PROFIT

A common misconception by many people in business is that profit should equate to funds in the bank. This is **NOT** the case. The reason lies in the manner in which profit is calculated by accountants as they adhere to the appropriate accounting / taxation rules of accruals and prepayments as specified by their governing bodies.

The profit of a business is reflected in the Profit and Loss Statement and is the result of what is left over from 'revenue' (all incomings) after costs have been directed. There is a simple formula for working out profit:

PROFIT = REVENUE - COSTS

Cash is reflected in the Balance Sheet as at a certain point in time and represents 'money in the bank' at that time.

The profit of a business records income and expense items of a deductible nature (i.e. wages, ACC, repairs & maintenance etc), while the cash position reflects the use of profits not just to pay those direct expenses, but also to pay for items of a capital nature (i.e. asset purchases, loan repayments, tax payments, personal drawings etc).

Cash pays your current bills and profit pays your future bills.

For Example:

- A profit of $100,000 is recorded for the year ended 31 March 2020 with a tax bill of $28,000.
- The cash at bank position as at 31 March 2020 is $2,000.

Q: Where is the difference of $98,000 and how is the tax to be paid?

A: Differences in net profit before tax and cash position can be a combination of the following:

- Tax payments.
- Loan repayments made.
- Capital items purchased (like a new machine, or vehicle).
- Owners drawings

While all of these come out of your cash flow none are directly offset against your taxable profit (although interest portion of loan is, plus depreciation allowance on machinery will be claimable).

Cash is the engine that drives a small business. The success of a business depends on its ability to manage its cash. Without cash flow planning the profitable business in the example above could run out of cash and go out of business. Cash flow analysis helps the owner to gain a deeper understanding of the core business activities and the management decisions that affect the business's continued profitability and sustainability.

Over the long run, profitable operations provide the only sustainable source of cash. Businesses will inevitably have their ups and downs, planning for these is essential for long-term survival.

OTHER ASSISTANCE YOUR ACCOUNTANT CAN PROVIDE

Accountants also assist with matters concerning taxation and the ramifications of the frequent changes to those regulations concerning:

- Business Structures.
- Income Tax.
- ACC.
- Kiwisaver.
- Fringe Benefits Tax.
- Fuel Rebates.
- GST.
- Resident Withholding Tax.

- Payments to Family Members.
- Family Assistance and Working for Families Tax Credit entitlements.
- GST or Tax Audits.

CHAPTER 4

MACHINE REPLACEMENT AND FINANCING

CHAPTER 4

MACHINE REPLACEMENT AND FINANCING

INTRODUCTION

Having costed your machine appropriately (*Chapter 1*) and considered productivity factors (Chapter 2) there inevitably will come a time when machinery will need to be replaced requiring significant capital expenditure (or possibly in the hauler scenario major upgrades / updates required – capital cost similar!)

To remain competitive in the logging industry, a contractor must continually improve systems and equipment. However as new machinery is purchased, hire purchase repayments, tax liabilities, production and possibly the crew makeup will change. The purpose of this chapter is to give a better understanding of machine replacement decisions and the factors involved around timing and financing of that process, including:

Timing

New v Second-hand

Types of finance

The finance application/process

Risk trade-offs

Financing issues

Sources of finance

Budgeting and Cash Flows (covered in Chapter 3)

There is no standard template to the replacement process. Each contractor needs to consider their own unique range of operational and financial circumstances to determine what is appropriate to their particular circumstances.

TIMING

Major issues that will influence timing include:

- Machine.
- Contract / market.
- Financial capacity.
- Operational efficiencies.

Machine – factors to consider will include:

1. Hours.
   As machines age mechanical availability generally decreases (*Chapter 2*). This cost is consistently underestimated and often ignored, but in terms of direct costs (lost production due to downtime / repairs) and indirect costs (employee and forest manager satisfaction) it is significant.

   Some contractors run to a (broad) set policy of change over at a certain desired level of hours. Given expected productive useful timeframes a common range for ground-based machinery would be 8 – 12,000 hours.

   Haulers generally will run more on the “grandfathers axe” theory, which is not to ignore the

fact however that likely every few years they will need complete overhaul at significant six figure sum cost, combined at times with technical upgrades, with the cost of those exercises sometimes being comparable to purchase of a new excavator or skidder.

Less frequently contractors may operate on the warranty period, commonly 6000 hours, with a view to replacing machines around that time so as to reduce downtime / repair risk.

2. Contract / Market issues

The term of contract and likelihood of renewal are factors that may also influence the timing decision. If there is a contract term that is known to be finishing and uncertainty as to renewal, deferring a replacement decision may be prudent rather than committing to high capital expenditure with uncertain forward work.

This approach is also influenced by evidence that the greatest loss in machine value arises early on in the ownership cycle so confidence in certainty of ongoing work is a definite factor to consider.

Allied with this are also machine market conditions. In times of strong log markets there can often be opportunity to achieve premium pricing on sale of a second-hand machine. This may well encourage the bringing forward of the changeover decision as better value for money may be achieved by purchasing a new machine while obtaining premium price on.

3. Financial Capacity

The availability of finance will depend on both contractor's individual circumstances and also financial markets in general. Ideally the contractor has achieved expected budget levels of operational and financial performance and the replacement decision is quite straight forward and can be undertaken when desired.

Where circumstances are less favourable there may be a need to hold on to the machine for longer than ideal. This comes with its own range of compromises, refer following *risk* section.

In addition to the contractors own particular circumstances availability of finance may also be influenced by general financial market conditions. In favourable economic conditions finance is more easily secured, the reverse however also applies, availability of finance may influence the timing of the purchase decision.

4. Operational efficiencies

As new models / technology become available these may provide cost / production efficiencies. This creates the opportunity for the contractor to become more competitive in obtaining work and / or retain some of those efficiencies in their profit margin.

The extent of these opportunities should not be underrated. A recent Forest Growers Research Harvesting Technical Note (HTN 12 – 04 2019) highlighted the efficiencies that have been generated from changes over the years in ground-based operations as:

	1985	2019
Mechanised Felling	5%	68%
Mechanised Processing	0%	82%
Productivity per worker hour	3.5 m^3*	6.3 m^3

*1991 survey

A new machine / system may allow:

- Enhanced safety.
- Improve system flow/productivity.
- Better quality product.
- Lower staff numbers.
- Improved cost efficiencies.

In summary there is no predetermined set time for change over. Every contractor will make their own decision based on their own experience of machine reliability and understanding of their own particular financial and contractual circumstances. The various issues requiring consideration are incorporated in the detailed costing and budgeting processes covered in this handbook.

NEW v SECOND-HAND

Ultimately the machine replacement decision comes down to comparing two situations. What are the costs of keeping the existing machine compared to a new machine? "Costs" refers both to actual costs such as R & M but equally, if not more importantly, production losses arising from less reliable older machines and associated downtime.

The main tool for evaluating the options is the *budget and cash flow forecast* (*Chapter 3*). The issues are summarised below:

EXISTING MACHINE	NEW MACHINE
Higher equity	Low equity
Lower interest charges	Higher interest charges
Lower depreciation	High depreciation
Higher R+M	High tax deductibility
Higher fuel consumption	Low R+M (warranty)
Old technology	New technology
Lower productivity	Lower fuel consumption
	Higher productivity

RISK TRADE-OFFS

The machine replacement decision inherently incorporates a number of risk trade-offs, namely:

Production *versus* Finance *versus* Cash flow *versus* Contract.

The various risks are interconnected. Understanding how these play off against each other is important, the following comments will assist contractors assess the issues relevant to their own particular circumstances.

1. Production
   In some contracts guaranteed continuity of reliable supply for an end user, sometimes at a high level, is essential. This suggests later model high production (and more expensive) machinery is more appropriate.

   In other, typically woodlot environments, where production volumes are typically lower and less tied to a specific end user requirement, also with less contractual certainty, lower capital cost machinery may be more appropriate.

   Either approach comes with its own other risks (refer below).

2. Finance
   The higher the capital expenditure the greater the borrowing and fixed monthly repayments.

   Experience suggests that debt levels / repayments to enhance production capability / reliability are generally more relevant in the corporate contract environment. While they may also be appropriate in the woodlot environment the greater the debt exposure the larger the noose around contractor's necks if anticipated workflows are not available.

   In the more uncertain woodlot environment lower cost second-hand gear with lower repayments may be more appropriate to assist to offset the uncertainty of work and associated cash flow issues. This comes with its own trade-offs around productivity and repairs.

3. Cash flow
   Later model higher capital cost plant offers more confidence in consistency of production and lower R & M risk. In theory resulting in greater reliability of cash flows.

   Offsetting those prospective advantages are higher levels of debt repayments. As these are fixed rather than variable operating costs this increases the risk to the contractor through impact on cash flows if anticipated production levels are not achieved.

   Older cheaper gear however comes with higher repair / productivity risk with associated potentials to adversely impact cash flow.

4. Contract
   The nature of the contract and confidence in forward work position will significantly influence what is the appropriate course of action. Comfort levels for both the contractor and financier, will vary dependent on history, projections and nature of contract i.e. what is appropriate in regard to levels of debt/machinery configuration for more stable long-term corporate work will be totally different from shorter term work options. Also refer *Chapter 7*

for more details on contract considerations.

The “right” outcome will always depend on individual circumstances.

FINANCING

Financing is a complex area that will often require professional assistance to ensure appropriate structures, presentation of information in an appropriate format and to minimise financing costs. The overview provided touches on the relevant issues to consider:

- Common financing scenarios.
- Sources of funding.
- What financiers look for.
- What contractors should consider.
- Timing mismatches.
- Types of lending / documentation.

Common Financing Scenarios

Typical finances issues involve 3 common scenarios:

1. Start-up.
2. Expansion.
3. Replacement.

These come with a descending order of difficulty:

Start-up – traditionally this first step is the hardest for any prospective contractor. Lack of proven business track record is always of concern to financiers and makes obtaining that initial loan extremely difficult. These concerns may be mitigated by:

- Level of equity input
- Strength of contract
- Strength of cash flow projections

These issues will be examined even more closely than normally would be the case (refer *“what financiers look for”* section below).

Expansion – into an additional crew while it comes with its own issues in terms of stretching equity that’s available will at least be supported by a history of business performance which will assist the finance process.

While simpler than a start-up expansion does come with its own issues and risks, these issues are examined further in *Chapter 3*.

Replacement – should be the most straight forward from a financing perspective, involving replacing existing machinery with something equivalent and with (presumed) benefit of equity accumulation in the replaced plant.

Sources of funding

Traditional sources of funds include:

- Yourself / family – savings or even equity in your home*.
- Your business – either equity accumulated in establish plant and / or cash deposit sucked out of cash flow.
- Vendor – some machinery vendors, may be willing to enter into "lease to buy" or other low and / or extended deposit arrangements.
- Finance Companies / Banks.

*Use of home equity is not to be taken lightly. If this is required / available then legal and accounting advice should be sought and borrowing structured to minimise exposure. Refer also *chapter 8*.

What financiers look for

The critical elements to any financier can be summarised as the "4 C's" i.e. Capital, Contract, Capacity and Character.

Capital - The amount of equity (either cash input or equity in other assets) the contractor has compared to the amount being borrowed will greatly influence both availability of finance and interest rate.

Contract - The term of the contract and whom it is with will also influence finance availability and rate. An established contractor with proven results and good long-term relationship with the forest owner or manager may be able to borrow a much higher percentage than a new contractor with a shorter-term contract and no track record.

Capacity - Cash flow budgets (refer *Chapter 3*) will be critical in assisting a financier to determine the merit of the proposal. Assumptions used in preparing the cash flow should be clearly outlined and should be able to withstand robust scrutiny.

Remember that the friendly finance representative that you meet sending you all those positive "sales" signals is merely the interface between you and a hard-nosed credit manager who makes the final call!

Character - Your personal history and experience in the industry as well as personal credit rating are all closely scrutinised.

As part of any finance proposal you will be required to sign documents allowing the financier to undertake a detailed credit check. They will. If there is anything at all in your past e.g. late paid bills, we recommend you disclose this up front with appropriate explanations. This presents much better than coming up through financier discovery process and then having to face the questions. The perception of hiding the issue will not enhance credibility.

A critical element is the subjective one of the relationship you have with your financier. A good relationship with an established financier is often worth paying a (small) premium for in rate.

As a broad guide standalone propositions i.e. without the benefit of allowing for equity that may be available in other plant items with 20 – 30% equity would normally be considered reasonable, other factors as noted above also to be considered.

Traditionally bank equipment lenders will have slightly lower interest rates but are likely to have

higher equity requirements and possibly other more stringent criteria e.g. loan repayment periods and stricter lending covenants than other financiers. Cheapest is not always necessarily best.

In summary every financier will put the 4C's into their respective lending pots, give it a good stir and see how it meets their particular criteria. Depending on the nature of the financier and state of markets the weightings they attribute to the 4C's will vary. What might not meet one financiers criteria on any given day may well be of interest to another i.e. it pays to understand the lending market and keep options open.

What contractors should consider

As noted above financiers will have their criteria to consider. Equally contractors have options, below are listed a range of issues that should be considered when contractors are making decisions over financiers:

History - This is put first for a reason. At some stage in the business cycle it is inevitable either industry conditions in general or contractor own circumstances will hit a difficult patch. A financier with a proven willingness to amend terms and be flexible at such times is invaluable.

Competitive Rates - Always important, no one wants to pay more than they should, but rate is not everything. Sometimes paying a higher rate for more favourable terms e.g. lower equity required, or comfort around long-term support may be a good option.

Loan Terms – It's not all about rate! Lending ratios (level of equity required) / loan periods / flexible financing structures / extent of guarantees and possibly collateral security required can all significantly impact when comparing one option to another.

The guarantee and collateral security point is worthy of clarification. Ideally a financier takes specific security over business related items, commonly supported by guarantees from shareholders directly involved in the business.

Some financiers have been known to look for additional guarantees and securities from 3rd parties not directly involved. While this might be justified in circumstances where lending is marginal we strongly recommend checking the fine print and resisting any excessive guarantee / security conditions. If in doubt take independent professional advice.

Knowledge – someone who knows what they are talking about, not just regarding finance packages, but also about the logging industry.

Accessibility – someone who is available when required.

Timeliness - in processing a deal and facilitating its general progress.

Early settlement terms – preferably actuarial, no penalties. This is an area that can add considerably to finance costs if not understood. Common penalty issues arise from:

- Settling fixed interest rate loans early
- Even floating rate loans sometimes have penalties e.g. 3 months of interest if settling early
- Wording such as "at lenders discretion" should provide a warning sign. If you are

looking to take your finance elsewhere there is little incentive for a financier to apply that discretion in a contractor's favour. Verbal indications that "we never apply that" have no standing and if made should be followed by a contractor saying, "in that case no problem in deleting that then!".

- Capacity i.e. ability to grow funding capability as the contractor's business grows.
- Costs. While interest is the main cost other charges imposed can be significant and vary considerably between different financiers. Such charges include initial legal fees, documentation fees and possibly restructure fees for any future changes.

Multiple lenders or one?

The major perceived advantage of multiple lenders is competitive tension over rate / terms. Plus, relationships with several lenders keeps options open as lenders appetite for certain types of lending / industries can vary over time.

Disadvantages arise around levels of security / equity as each lender jostles for a stronger position. This can create considerable tension with potential to sour relations. Also, at times more favourable rates and terms can be negotiated where there is one lender with larger lending portfolio to a company due to economies of scale.

As with many issues the "right" option will be dependent on individual circumstances and preferences.

3rd party lenders - The preceding largely deals with the significant lending in plant. There are often separate smaller finance deals undertaken, notably in regard to vehicles as contractors frequently avail themselves of such lending from a convenience "let's just get on with it" perspective.

With the exception of "special" supplier interest rates that are sometimes available, both the loan fees and interest rates for such third-party are likely to be much less favourable than can be obtained from primary lenders. Additionally, settlement terms will almost certainly be much less favourable. Given the frequency of change in vehicles there is a high likelihood of triggering those settlement costs.

All this can add considerably to costs. In most cases the main contractor lender will consider adding such vehicles to their established facilities if requested. A simple phone call could save thousands of dollars.

Timing Mismatches

Timing mismatches refers to a difference between the term of finance and productive life of a machine financed. While really a subset of the preceding section in the writers experience as this is one of the most common reasons for cash flow problems it warrants its own section to highlight the issues. It can arise in two ways:

1. A desire to repay debt quickly means that a short-term programme of debt repayment e.g. three years on an excavator or five years for a hauler, is undertaken. Unless a contractor has good equity to input, or high profit levels / cash flow, over time this is going to put strain on cash flow as standard contract costings (upon which many rates are based) do not provide sufficient margin.

This situation does not appear overnight, the pressure of excessive loan repayments gradually accumulates in pressure on cash flow and overdraft facility. It is important to examine the reason why such pressures are accumulating and not just paper over the cracks by extending facilities is this just kicks the can down the road. Implementing more appropriate loan terms is the correct long-term solution.

2. A more common problem will be a contractor struggling with equity/cash flow who finances equipment over a longer period than its useful life in its operation so as to reduce monthly payments. For example:

   - Purchasing a second-hand plant item with really only two to three years of likely effective useful life, but financing over four or five years;
   - Buying new equipment, financing over five years but then working extended shifts, say 2,500-3,000 hours per year in an excavator / processor, so that after 3-4 years the machine requires replacement.

Under either of the above scenarios, unless the operation is particularly profitable and cash is being generated to put into the future replacement of plant, equity is likely to be eroded. So, the cash flow might look good in the short term, but it starts to turn to custard when replacement is required and you find your financier is uncomfortable about the lack of equity.

Problems with machine life / term loan mismatches create:

- Increases in costs (due to short term refinancing required), and
- Erosion of equity if debt is repaid more slowly than the decrease in the value of the plant item.

Contractors will benefit from discussing technical issues regarding all the above matters with their accountant.

Types of Lending / Documentation

There are various forms of lending and associated financial documentation. Below we examine some of the common areas so contractors may have a better understanding of the implications and options, including:

Hire purchase (HP)	*Term Loans*	*Revolving credit facilities*
Operating and finance leases	*Vendor finance*	*Other finance related documentation*

1. **Hire Purchase**

   The most usual form of machine financing and generally simplest paperwork wise is the hire purchase agreement. This involves a regular monthly payment of the same amount over a loan term.

   If the hire purchase instalment is greater than the amount the machine costing estimates as the sum of depreciation and interest on capital you will need to consider where else in your cash flow that difference is to come from.

   Security for HP lending is commonly just over the relevant plant item with supporting shareholder / director guarantees.

2. **Term Loans**

Term loans are a form of HP but where the same amount of principal is paid off every month and interest is calculated on the outstanding balance each month and gradually reduces. This reduces the interest paid in total over the term of the loan, as repayments early on are higher than later. This may be useful to balance out cash flow as the reverse timing applies with repairs.

3. **Revolving Credit Facilities**

A variation of the term loan option this is a finance package where all or a portion of a contractors' plant, machinery and motor vehicles are pooled together and used as security under one master lending document.

In general, these involve providing an overall facility limit, akin to a very large overdraft securing all assets and borrowing for a company. The benefits for larger contractors with a number of assets and frequent asset changes are:

- Greater ease of borrowing
- Ability to purchase additional plant (within the agreed facility limits) without having to make further specific loan application or seek approval.
- Lower potential interest costs arising from both the scale of the lending and also opportunity to use surplus funds that may be available to temporarily input back into the facility. Provided they remain within an agreed facility limits such deposits can be pulled back when required for cash flow purposes, in the meantime saving considerable amounts in interest that would otherwise have been charged. Well in excess of what would have been achieved by putting such funds into a savings account.

Because of the documentation associated with such facilities there may be considerable legal costs and other upfront fees incurred initially.

A borrowing limit is set (a percentage of current valuations) and a percentage of the capital outstanding must be repaid each month to ensure that percentage is not exceeded. Payments can be increased or decreased and interest is calculated daily, on the capital outstanding. As long as the basic requirements are met, finance is quickly made available to the approved limit. This arrangement is useful for those with several machines who update them regularly.

Most of the major financiers have such facilities available, described under various names such as Credit Plus / Easylink / Fleet Facility et cetera.

4. **Operating and Finance Leases**

Unlike an HP / term loan facility a lease normally requires little or even no upfront deposit. Perhaps at most one-month lease payment in advance. Accordingly, leases can be attractive to contractors with minimal equity.

As legal ownership of the plant remains with the supplier, not the contractor, it is often described as "off-balance sheet financing". This can improve contractor formal equity and potentially ease borrowing with other financiers. A common lease term is 3 years.

There are however no free lunches. Disadvantages include:

- Given the lack of equity input commonly real interest costs incurred may be higher than other finance options and accordingly monthly payments may also be higher.
- There is a common misconception that as the contractor does not own the item that it is easier to exit such an arrangement than under a standard loan. In fact, the opposite is true. Under a standard loan where the item is owned by the contractor it can be sold and the loan can be settled if circumstances require.
- A machine supplier (who often will have arranged the lease) is commonly not the financier of the lease, they will have separate linked arrangements with a third-party financier that cannot be broken without incurring large penalties.
- Leases will commonly also have a maximum number of hours / kilometres allowed. Exceeding those limits will result in additional charges that may not have been budgeted.
- As well as the hours / kilometres issue commonly there will be clauses in the fine print regarding the condition of the equipment / vehicle upon return. If it fails to meet these standards considerable extra costs may arise.

In summary for contractors with a shortage of equity but confidence in their cash flows and work for the lease term (3 years) leases may well be a realistic option. But it is important to understand leases can come with their own fishhooks.

There are 2 distinct types of leases. Understanding the difference is important for both legal and tax reasons.

Operating leases – In these the asset is returned at the end of the lease. The lessee accumulates no legal interest in the asset. Payments are fully tax deductible. Contractors need to be very careful here though as if a lease provides even the option (but not the requirement) to purchase the payments are not tax-deductible and the lease should be treated as a finance lease.

Finance leases – In these the lessee accumulates an interest and takes legal ownership at the expiry of the lease. Commonly this involves the payment of what is called a "residual value" amount. Easiest thought of as a deferred deposit. The contractor may have accumulated cash to meet that residual value payment, alternatively may have and built up equity in the asset sufficient to arrange borrowing of the residual value amount.

From a tax perspective even though the contractor does not legally own the asset the lease is treated as a loan, the asset is taken up in the contractor asset schedule and depreciation and interest claimed.

Operating leases are frequently promoted by equipment / vehicle salesmen as offering tax advantages due to the full deductibility of the monthly payments. In our experience this advantage is at best notional as ignores the depreciation / interest claims a contractor can make under either a finance lease or normal ownership.

Whether there are any advantages will only be determined at the end of the 3 years and subject to market conditions in regard to the relevant asset value at that time.

5. Vendor Finance

This can be an option particularly when contractors or sometimes equipment suppliers sell second-hand equipment.

If a purchaser is unable to provide a deposit the vendor may hire the equipment to the purchaser for an agreed period, with the option for the purchaser to receive a rebate of an agreed proportion of monthly hire payments. This assists the purchaser accumulate equity so that eventually they can arrange third-party finance to complete an outright purchase.

Ownership remains with the vendor but there are potential legal issues and it is important such arrangements are documented carefully, including registration on the PPSR (*refer below*).

6. Other Finance Related Documentation

It is useful to understand some of the terminology associated with debt instruments and associated documents. The following provides a brief summary of some common documents and terminology:

The Personal Property Security Act (PPSA) is the overriding Act documenting the rights and obligations of borrowers and lenders.

Personal Property Security Register is the Government's electronic register where details of security interests in personal property can be registered and searched. It provides one single register for all security documentation with the objective of providing a clear publicly available record for searching (refer *www.ppsr.govt.nz*). Click on the PPSR search icon and follow request for information requested. A small charge applies.

To ensure validity of charges it important to ensure all appropriate details are correctly entered. Invalid or unregistered charges cannot be relied upon for security. Additionally, the PPSR provides a ranking of charges should there be multiple charges over a particular asset. The ranking is based on a "first in best dressed" (subject to any agreed change in priorities between lenders) so it is very important to ensure any charges are registered in a **timely manner**.

Specific Security Agreement (SSA). This is a charge over a particular asset.

General Security Agreement (GSA). This is a floating charge over all of a company's assets not specifically secured under a SSA. A GSA also covers the equity in a plant item that may be secured under an SSA i.e. while the holder of the SSA has first charge over sale proceeds the GSA holder then has priority over unsecured creditors for any residual equity available.

GSA's are used by banks and financiers providing revolving credit and overdraft facilities. Not only do they provide cover over all the unencumbered assets of an enterprise (those assets including stocks and debtors in particular), but importantly provide significant control (and comfort to financiers) in regard to creating the ability to appoint a receiver or liquidator, at very short notice, if desired.

Personal guarantees are frequently required by financiers; they really want to know that directors / shareholders are fully committed to meeting borrower obligations!

Issues that should always be considered when you are offering guarantees are that, where possible, they should be limited both as to:

- Time - so they do not become open-ended. There is always a danger in providing a guarantee at an early stage of a business and then forgetting that it is in place so that you are still exposed to potential (but forgotten) liability. So ideally specify a time at which the guarantee will either expire (if loan terms have been complied with) or at the very least be subject to review and possible renegotiation.
- Amount - where possible limit the dollar amount of the guarantee to a specific figure rather than providing an open-ended personal guarantee with no specified amount.

Personal guarantees always have risks, but until a contractor accumulates a level of equity where they can rely on that equity to provide appropriate comfort to a financier then unfortunately they remain a feature of the lending environment and may have to be regarded as a “necessary evil” for a contractor to access finance to enable the business to grow.

CHAPTER 5

EMPLOYMENT ISSUES

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INTRODUCTION

Labour related direct costs (wages / subcontractors and ACC) generally comprise the largest single expense facing a contractor. Depending on degree of mechanisation between 20 – 40% of turnover for loggers and up to 60% for silviculture contractors will be incurred in employment related costs.

The purpose of this chapter is to assist a contractor increase their labour management skills, provide an overview of legislation affecting employment related issues and overall a better understanding of the issues contractors face and options to deal with those.

With numerous items of legislation impacting labour issues we recommend appropriate professional assistance be sought where necessary to cover a contractor's own specific circumstances.

This Chapter covers the following:

Types of employment

- Wages
- Piece rate
- Subcontractors

Reward and Career Packages

- Wages
- Bonus
- Non-taxable allowances (NTAs)
- Holidays
- Fringe benefits / vehicles
- Careers

Employment Relations Act (and related legislation)

Employment agreements

- Overview
- Trial / probation periods
- Leave
- Redundancy
- Termination

Accident Compensation

Health and Safety

Guidelines for better employment relations

KEY DOCUMENTS

The links below will download the key supporting documents that will assist the user through this chapter.

When you click these links, you will be prompted to save these files on your computer or will be asked where you would like to save these files. It is suggested that you use a working folder to keep all of these files in one place.

Remember to save your work often to make sure that your work is captured in the document. Save your work prior to exiting the document.

These documents consist of manual templates are referenced multiple times throughout the chapter and can be downloaded below.

A29 - Pre-Employment Check

Applicant Assessment Form

E05 Pre-Employment Agreement

Employee Performance Review

Employment Application

Health Monitoring Form

Induction Checklist

Interview Guide

TYPES OF EMPLOYMENT

There are three main methods by which workers can be employed and paid:

- Wages.
- Piece Rate Systems.
- Subcontractors.

There are significant differences in the ways these need to be treated for taxation purposes. It is important that contractors understand these and consult their accountants if necessary, to avoid adverse taxation consequences.

While there are numerous payroll packages available to contractors there are costs associated with these and also risks if they are not operated correctly. Because of the complexities of payroll related legislation (*refer legislation section*) many contractors prefer to outsource the payroll processing and the holiday pay function to specialist service providers. Yes, there is a cost associated with that, but that may be significantly cheaper than the costs of getting it wrong, let alone the contractors time and effort.

Wages

From an administrative standpoint the simplest method of paying your workers is on an hourly basis. Additionally, it is usual to pay any tax-free allowances required to reimburse workers for expenses they incur.

In practice it is better to operate a wages system well than either a piece rate or subcontract system poorly. Simple rule, "If it's not broken, don't fix it". But if you are not happy with results from the wages system then other options may be worth looking at.

Piece Rate Systems

An alternative to paying wages is paying each worker or group of workers based on their level of

production. This system is used infrequently in logging but is common in silviculture. It links labour costs to production required per workday and pays according to the relevant unit of production e.g. stems / tonnes / area.

This rewards the worker for their expertise and effort, similar to how the main contract rewards the contractor when production exceeds target and vice versa. So there is a closer alignment of both contractor / employee interests.

In structuring this type of system, you need to determine daily wage rates for each worker for the whole year (i.e. workdays, statutory holidays, wet days and leave days). Each non-working day (such as a statutory holiday or sick leave) can then be paid at that rate.

Travel time can be included in piece rate calculations, as can wet days, but it is illegal to include holidays, sick or bereavement leave in piece rate calculations.

Important – the employer must pay at least the minimum wage - even if an employee is paid by piece rate. The Department of Labour has identified this as a real problem area and has put the silviculture industry in particular on notice that they are inspecting more closely. It is important to include all relevant hours, including travel time through forest and time preparing equipment and in safety briefings.

This can be a real problem for inexperienced workers who are not yet fully productive and it is possible they may have to be paid on an hourly rate through a trial or probationary period until desired levels of production can be achieved. This has potential to adversely affect contractor margins.

Subcontractors

A step away from the wages system beyond piece rates is the use of subcontractors. This is where a contractor retains management or supervisory responsibilities, but the operational work is done by a legally independent party operating in a subcontract arrangement.

It should be noted that for tax purposes, a subcontractor will generally be required to supply their own workers and equipment. The only control the head contractor then exercises is over production and quality. The subcontractor is not under your direct control and is free to decide when, where and what hours they work and to meet your production and quality targets in the most appropriate way they see fit.

Although the subcontractors are self-employed and can claim all their business expenses, they come under the schedular payments (formerly withholding payments) system. This means the contractor must deduct tax from payments made to subcontractors, unless the subcontractor holds a current certificate of exemption (COE) from tax on schedular payments or operates as a company.

This places a requirement on the contractor to withhold tax at the rate of 15 cents in the dollar from the payments made (not including GST). This rate is approved where the subcontractor completes the IR330, otherwise the rate is 45 cents. The subcontractor can apply for a COE on Form IR331. These forms and advisory guides to schedule of payments can be obtained on the *IRD website*.

To comply with IRD requirements and provide some protection for the head contractor, you should ensure you document the terms of the subcontract noting:

- The subcontractor is responsible for providing all their own major equipment, tools, supplies and transport and pays all of their operating costs.
- The subcontractor is responsible for providing their own workers, controlling those workers and paying all costs, including ACC and Student Loan repayments and providing or paying for training relating to those workers.
- Where payment for the contract work can reasonably be expected to exceed $60,000 per annum, the subcontractor registers for GST.
- The subcontractor is paid on an agreed basis by providing an invoice to the contractor.
- The contract should clearly spell out the method of calculating payment in terms of the required production and quality of the job.
- The subcontractor is not entitled to any other payments usually paid to employees, such as sick leave, holiday pay or NTAs.
- The subcontractor is not under the direct control of the prime contractor and can work their own hours.

In particular IRD are inclined to look closely at what are basically labour-only subcontract arrangements when they apply to individuals supplying minimal equipment, to ensure that they should not really be treated as employees and subject to the PAYE system. Significant penalties may arise should this be the case. We recommend contractors seeking to use subcontractors should seek professional advice to ensure they comply with appropriate IRD requirements.

Subcontractors need to keep detailed records as in any business. In practice, this is not often handled very well by smaller labour-based subcontractors, with the effect that at the end of the year they can have tax bills to pay, due to the fact that tax has been deducted at only 15 cents in the dollar. If they claim all their expenses, this is not a problem. Sometimes, through inadequate record keeping or lack of understanding, this is not done.

In many cases subcontractors forget to pay ACC levies and consequently when they receive either large tax / ACC bills to pay considerable friction is created, as in most cases no provision for tax / ACC savings has been made. This situation can be further compounded if they are registered for GST, which in many cases they should be. The potential for considerable souring of relationships between prime contractor and subcontractor is obvious.

As with all contractual situations, it is **extremely** important that the terms of the arrangement be documented **in writing** and signed by both parties. Informal and undocumented arrangements are a time bomb waiting to explode.

There have been a number of successful court cases whereby "subcontractors" with poorly documented arrangements who have effectively been working on a basis similar to employees have argued that they were truly employees and as such entitled to all the protections of employment legislation, such as holiday pay, appropriate dismissal procedures, etc.

Most contracts with forestry companies require that they formally approve any subcontractor arrangements, especially if this involves ownership of machinery.

REWARDS AND CAREERS

The easy part of setting up of a logging operation is the purchase of the gear. The hard part is sourcing and then retaining suitably experienced workers. Experience shows that a stable and productive workforce the key to success. Below we will review the various areas to consider to

assist in achieving that objective.

One issue to consider is that while monetary reward is always going to be important, in many cases it is not the sole determinant for obtaining and retaining workers.

Wages

The required level of wages necessary to obtain employees is subject to a range of issues including:

- Region – Rates tend to be somewhat lower in more established areas with a greater pool of labour than in rapidly growing areas such as East Coast.
- Experience – Qualified operators / fallers / breaker outs are generally in high demand and expect to be rewarded accordingly.
- Need – Supply and demand, sometimes a contractor may need to pay a premium, especially if missing a key worker whose skill set is necessary to maximise productivity e.g. an experienced operator. And sometimes, especially in market downturns there may be a surplus of workers available, likely reflected in rates required to be paid.

Whatever is the agreed rate it is important to ensure that it at least meets the guaranteed minimum wage under legislation. This is $18.90 per hour from 1 April 2020. This could be particularly relevant for those on piece rates (*refer previous comments*).

Workers often try and compare wage rates with different prospective employers. This can be a misleading exercise as the “headline” rate can be distorted by a number of factors and result in unfair comparisons:

- Some workers / employers include an average hourly NTA figure in the gross taxable hourly wage to provide a combined hourly rate. While incorrect as NTAs should be a separate issue altogether, this does happen, refer *NTA* section.
- Some employers pay travel time but might pay a lower hourly rate.
- Some employers pay no travel time but might pay a higher hourly rate.
- Sometimes an agreed standard level of travel time is paid, irrespective of actual travel time.

On the subject of travel time, for PAYE purposes this is just another form of gross wage. Some employers have been known to treat this as an NTA. This is incorrect and leaves the employer subject to significant penalties if identified by IRD.

In many cases the easiest comparison is to look at the net take-home wage achieved. However, if that is the case it is important to ensure comparing like with like i.e. hours worked.

Experienced employees are always in demand and contractors should pay accordingly. There are huge costs involved in replacing staff, both direct and indirect. And while wages are always important and for some workers everything, for many they are not the sole determinant as to their job satisfaction and them remaining.

Bonus

Rewarding the crew for exceeding target, or possibly achieving weekly target in less than 5 days can be undertaken by:

- Paying the crew or sometimes foreman or other key workers an agreed ratio of any

overproduction.

- Providing a less formal “one-off” bonus payment at the end of a productive month.
- Knocking off early on Friday when weekly target has been achieved.

While agreements can be formalised with key workers the more common experience is that such “bonus” arrangements are often on an informal basis e.g. if that highly productive month has been achieved by incurring high machine costs no bonus may be warranted.

To be effective all incentives should be based around measures the employee can relate to, influence and measure.

Non-Taxable Allowances (NTA’s)

Payment of NTAs is common in the forestry industry. An NTA reimburses an employee for an allowable expense (otherwise payable by their employer) incurred by that employee in regard to their occupation. IRD will accept NTA’s provided they are justifiable reimbursing allowances. A wide discretion exists, but there is also a much greater responsibility on the employer not to abuse this by overpaying NTA’s.

Maximising justifiable non-taxable allowances (NTA’s) increases workers’ take home pay and lowers ACC / holiday pay costs to employers. Unjustifiable or excessive NTA’s leave an employer open to IRD audit and potentially significant ACC / PAYE costs and penalties.

In 2015 IRD identified that there had been incidents of abuse of the NTA process and issued a general warning. This caused considerable concern in the industry and some contractors ceased paying any NTA’s. This is potentially an overreaction. All the IRD statement outlined was a clarification of existing law and confirmation they would police more closely (which has occurred).

There is no question that the rules surrounding NTA’s and what is an appropriate level of payment cause confusion for many contractors. There remains a misconception amongst many in the industry that levels of NTA’s mandated under historical union awards remain applicable e.g. $28 per day for a chainsaw. This is incorrect – there are no set allowances, merely what can be justified as a legitimate reimbursement under the rules.

Level of appropriate NTA’s will vary depending on each contractor’s particular circumstances. We recommend experienced tax advice should be obtained if in doubt, getting it wrong can involve significant penalties and draw unwelcome attention from IRD. A real red flag for the IRD will be the same NTA paid to all workers. They have, correctly, recognised that different tasks within the crew should have different requirements for, and levels of, NTA.

Finally, it is important that you clearly record what items you are reimbursing under an NTA, ideally this should be included in the employment agreement schedule. This provides clarity of the position for both employer / employee and also assists the evidential trail should IRD make enquiry.

Holidays

Minimum entitlement to annual holidays for a full-time employee is four weeks on the completion of 12 months continuous service. If it is agreed, an employer may wish to grant terms more favourable than the Holidays Act e.g. long service leave but the number may not drop below the minimum.

Employees sometimes don't want to take all their 4 weeks and would rather be paid in cash. After 12 months employment if there is mutual agreement between the employer and employee it is possible for the employee to be paid up to one week of their annual leave in cash. They still must use their remaining 3 weeks i.e. this cannot be cashed up. Further details are available *here*.

Timing of holidays is usually by agreement between employer and employee.

Fringe Benefits / Vehicles

Sometimes an employer may wish to provide employee recognition by providing a one-off benefit e.g. providing some goods or services. This is called a fringe benefit. A fringe benefit is a non-cash benefit provided by the employer to an employee in connection with employment.

Fringe Benefits are a particularly complex area of the Income Tax Act and require filing of either quarterly or annual returns (depending on circumstances). The paperwork required to be completed is detailed and assistance may be required. In broad terms fringe benefits come in 2 forms:

- Classified Benefits – These include subsidised transport (refer below), employee loans, contributions to superannuation schemes, health and life insurances. These are automatically subject to FBT and will require filing of a return and necessary payment.
- Unclassified Benefits – A catchall category for all other benefits provided, these arise when an employee receives any other benefit not deemed to be a classified benefit e.g. free or subsidised goods derived in connection with the employee's employment.
- Unclassified benefits the total taxable value of which does not exceed $1,200 per employee per annum and $22,500 per employer per annum do not incur a liability to pay FBT. Although a return, either quarterly or annually is still required.

Fringe benefits are taxable at a rate of 49%. This is deductible expense item so the net cost becomes 33%.

Importantly benefit of subsidised transport is included under the FBT regime. Vehicles described as work-related vehicle (WRV) and complying with specific rules are excluded from FBT. IRD are very sensitive to this and there are strict rules around definitions as to what is a motorcar and what is a work-related vehicle (WRV). In layman's terms a WRV will be a Ute.

Simply being a Ute does not however qualify as a WRV for FBT purposes. A vehicle must meet a number of other specific requirements and the employer must ensure appropriate restrictions on any personal use are in place.

It is important that all the required criteria are complied with as IRD enforce this area stringently. Because of the value of the vehicles involved the amount of FBT and penalties that can arise and be backdated for years, could be significant if contractors get this wrong.

Career Path

For some employees visible career path and assistance is a great motivation. In the logging industry the best way to do this is by training and education. Providing opportunity and paying for attendance at courses can be a good way to increase motivation and loyalty.

Learning other logging skills and rotating jobs with other crew members has been shown to assist job satisfaction and production, by reducing boredom and increasing skills, enabling workers to move to positions that are causing bottlenecks in an operation. *Chapter 2* highlighted how this can be a feature of top performing crews.

In some situations providing access to business courses and the step to a subcontract within the crew (e.g. a loader contract) could retain key skills and experience in the crew for longer, and ultimately even assist the exit plan for a contractor by grooming a successor.

Social Activities

Social activities can be a very good form of incentive and helpful in establishing and maintaining a team. Some points to consider:

- Fix an annual budget.
- Include families sometimes.
- Your company is responsible for everything that happens as a result of a work gathering, so planned get-togethers with transport home supplied may be better than impromptu stops at the end of a workday.
- Print shirts, caps, etc, with the crew name or logo.

Safety Commitment

If an effective Health and Safety policy is in place and staff can see that the contractor is actively concerned for their safety, they are more likely to develop loyalty and job satisfaction. Industry surveys show that workers sometimes leave a contractor's employment because jobs are perceived to be unnecessarily hazardous and / or there is inadequate attention to safety issues.

Recognition

A very important incentive which can be given to anyone is recognition for work well done. Praise or reward for good work should be given when due, either in private or in front of others, to improve self-esteem and job satisfaction. Conversely, never express dissatisfaction in public, only one to one.

Recognition might extend to putting the name of a long-serving operator on the machine. Listen to and involve operators in maintenance decisions and have them keep lists of maintenance jobs to do if stand-downs occur.

Below are the results of a survey of employees and employers in which each was asked to rank (from 1 highest to 10 lowest) the issues that motivated them to perform (for employees) or that they thought would motivate their employees to perform (for supervisors).

Employees	How Supervisors thought their Employees felt
1. Appreciation	1. Good wages
2. Feeling "in" on things	2. Job security
3. An understanding attitude	3. Promotion opportunities
4. Job security	4. Good working conditions
5. Good wages	5. Interesting work
6. Interesting work	6. Boss's loyalty to staff
7. Promotion opportunities	7. Tactful discipline
8. Boss's loyalty to staff	**8. Appreciation**
9. Good working conditions	**9. An understanding attitude**
10. Tactful discipline	**10. Feeling "in" on things**

Table 5.1: Employees' Motivation Factors vs Perception of Employers

A useful insight into the differences between how employees and employers think, with the top three motivators for employees being the bottom three perceived by employers!

Recognition should also be formalised by maintaining a Performance Management System discussed later in this Chapter. Regular (annual) employee evaluations can be used for motivating and steering employees in a positive direction such as training and personal development.

EMPLOYMENT RELATIONS ACT

This section will address many common issues that experience indicates are often overlooked or ignored:

- The employment process.
- Employment agreements and desirable clauses to include.
- Review.
- Trial / probationary periods.
- Personal grievances.
- Special (sick and other) leave.
- Domestic violence leave.
- Deductions.
- KiwiSaver.
- Holiday Pay.
- Redundancy.
- Termination.
- Unions.
- Changes.

Legislation relating to employment issues includes, but is not limited to:

- Employment Relations Act 2000 and amendments.
- Health and Safety at Work Act 2015.
- Holidays Act 2003.
- Parental Leave and Employment Protection Act 1987.
- Human Rights Act 1993.
- Privacy Act 1993.
- Wages Protection Act 1983.
- Domestic Violence Victims Protection Act 2019.

As an employer, a contractor must carry out an employment relations role. And you thought you just needed to pull logs – a law degree might be more appropriate!

Providing well-drafted employment agreements, policies and systems is time-consuming and will cost, but can greatly reduce the risk of breaches of the law and expensive and time-consuming / stressful litigation and settlements. Such compliance is particularly relevant as enforcement agencies and courts have proved unsympathetic to employers unable to maintain compliance.

Employment issues are heavily regulated and have significant potential for dispute. Considering that your employees are the key to your business success and comprise your single largest operating expense, getting it right is worthwhile. A good starting point for information is the *Employment New Zealand Website*.

The Employment Process

Even before you have employed someone there are issues you need to consider under the pre-employment process. Particularly:

- The interview process – if you are interviewing prospective employees the ERA does not allow you to base hiring decisions on an applicant's sex, marital status, religious beliefs, ethical beliefs, colour, race, ethnic or national origin, age, political opinions, employment status, family status or sexual orientation.
- Asking questions on any of these issues may leave you open to charges of unlawful discrimination.
- Questions that you can ask need to be relation to the requirements of the job. You should be clear that the questions are relevant to the position. Even then wording of the question can be important. For example, asking whether someone has ever claimed ACC could leave you open to charges of discrimination on the basis of disability. However, the same question, but worded more specifically, such as asking whether the prospective employee has any injuries that might affect their ability to carry out the job, is acceptable. There is also a formal process to obtain ACC history, refer *here*.
- A pre-employment letter can be of assistance against future action by an employee if it specifies your entitlement to work-related medical information and also if it confirms that employment does not commence until a signed Employment Agreement is returned. A suggested form of letter can be referenced *here*.
- Pre-employment drug tests are now considered a prerequisite to employment in the industry. You may also desire applicants to undergo a medical check. It will be necessary

for you to obtain written approval from the prospective employee that these results should be made available to you. Sometimes forest managers may also demand evidence of results in regard to drug testing and the previously signed approval should also incorporate that consent.

- There have been a number of cases involving definitions of when employment commences, or a job offer has been made. It is important that you make it clear to prospective employees at all phases of the selection process that they do not have employment until the proposed Employment Agreement is signed and returned. Clear procedures about this will help minimise accusations of an employment offer having been made and accepted, with potential consequences arising there from (refer below).
- And if an offer of employment, either verbal or written is deemed to have been made and then withdrawn, employers can still face the likelihood of an unjustified dismissal claim, even if the employee had not actually commenced work.

EMPLOYMENT AGREEMENTS

Formal employment agreements are required because:

- It is your first and best line of defence, and
- If your agreement is clear and your employees are happy with it then potential for disputes is reduced.

The ERA makes it **mandatory** that all individual Employment Agreements must be in writing and include certain key requirements as set out in the Act.

Those minimum requirements are:

- The employer's and employees' names (parties).
- Description of the work to be undertaken (duties).
- Indication as to where the work will be (place of work).
- Working hours.
- Remuneration (e.g. wage rates).
- Plain language explanation of disputes resolution procedures.

It is recommended in regard to the description of work required that a Job Description that is all-encompassing is added. Describing someone's position as loader operator in an agreement, but then expecting them to drive other machines or perhaps help out on the skid or do log Q.C. could give grounds for a constructive dismissal case.

As an employer, you are free to negotiate any agreement you like with your workers provided it complies with employment legislation. The agreement can cover all of your workers, or each worker may be covered by a separate agreement.

The terms and conditions of the agreement which you put in place are determined by agreement between you as employer and your employee or employees. The only terms and conditions which you can't change are those relating to statutory holidays and the mechanism for resolving disputes. The Employment Relations Act puts in place processes for resolving employment problems without being prescriptive.

Desirable Clauses to Include

Non-mandatory, but highly desirable clauses to incorporate in an agreement may be:

- Authority to make deductions under specified circumstances.
- Approval to make payments of wages otherwise than by cash. This must be by mutual agreement and for your protection such agreement should be in writing.
- Actions that may result in disciplinary procedures, or instant dismissal.
- The period of notice required to be given.
- The procedure if a redundancy situation should occur.
- Requirement to undertake drug testing.
- Level of NTA payable if the employee provides materials to assist his work e.g. their own chainsaw, personal protective clothing, tools et cetera.

There are a number of free template employment agreements available online. These should be approached with caution as frequently merely cover the basics and are quite simplistic and not necessarily appropriate for the complexities involved with forestry e.g. drug testing requirements, locations of work, redundancy, NTAs et cetera. We strongly recommend obtaining professional support to obtain an employment agreement appropriate to your circumstances.

Review

The ERA also makes it a requirement that the prospective employee must be given a copy of the proposed Employment Agreement and have reasonable opportunity to consider the agreement and seek advice if desired. You must advise the employee that they are entitled to seek independent advice about the proposed agreement and give the employee a reasonable opportunity to seek that advice. At least 24-hours would be considered a minimum. Failure to do so not only exposes you to specific penalties, but also leaves you vulnerable to accusations of "unfair bargaining".

Trial / Probationary Periods

Trial or probationary periods are quite permissible. Trial periods can be used to assess the suitability of an employee. They can only be used if an employer has less than 20 employees and can only be up to 90 days.

Provided proper process is followed in theory removes the ability for an employee to take a personal grievance for unjustified dismissal within the trial period. This does not give open slather to abuse employees' rights. In particular employers need to be aware that the period must be specified in writing in the Employment Agreement. Experience is the Employment Courts and Tribunal will look very closely at use of trial periods to justify dismissal so it is very important to follow correct procedures.

In dealing with an employee on a probationary period it is desirable to:

- Undertake a full employee induction, defining clearly what is required of the worker, in particular a detailed job description and performance standards.
- Define the term of the probationary period in the employment agreement. This can be longer than 90 days.
- Diary, follow up and document review dates and outcomes during the probationary period.

- Meet the employee on the review dates and discuss performance. Where problem areas are identified, the employee's explanation should be asked for and considered, then clearly outline what is required and where required provide additional training or assistance.
- At the end of the probationary period either:
    a. Confirm the satisfactory completion of the trial period, or
    b. Extend the probationary period by consent, or
    c. Dismiss the employee having followed the appropriate dismissal procedures. An employee may raise a personal grievance if a dismissal is unjustified or a fair process was not followed.
    d. If nothing is said or done by the employer at the end of the probationary period, and the employee continues to work, the employee becomes a permanent employee.

Trial periods can only be used for new employees. Trial periods cannot be used when re-employing a previous employee. Probationary periods can also be used for existing employees e.g. if they are being considered for a new role. The probationary period can be used to assess the skills of an employee to determine their suitability to the position.

Personal Grievances

As noted previously, it is a requirement that an employment agreement puts in plain English the steps to be followed should a dispute arise. The ERA defines a personal grievance as being:

- Unjustified dismissal.
- Employment affected to the employee's disadvantage by unjustifiable actions by the employer.
- Discrimination.
- Sexual harassment.
- Racial harassment.
- Duress in relation to membership or non-membership of employees' organisation.

It is a requirement under the Act that the procedures to be followed are clearly documented in the Employment Agreement.

The following steps should be covered:

- Define the problem.
- Clarify the problem from both the employer's and employee's perspective.
- Additional facts should be sought.
- Problems should be discussed further (if necessary).
- Where possible, agreement should be reached and that solution should be documented.
- If the problem cannot be resolved, then other steps to be taken need to be outlined, such as seeking mediation from the Employment Relation Service (or a mutually agreed mediator) or obtaining information from the Employment Relation info line.
- Proceed to the Employment Relations Authority if mediation is not agreed.

If the problem is a personal grievance it must be raised within 90 days of ***either*** when the instance giving rise to the grievance arose ***or*** came to the attention of the employee. Normally if

the complaint is not made within the 90-day period then the Employment Relations Authority will only grant an extension in exceptional circumstances, unless the employer consents to an extension.

Instances of serious misconduct or non-performance (which do not warrant instant dismissal) are frequently a cause of personal grievance complaints. Accordingly, it is desirable to handle such meetings in an appropriate manner including:

- The employee should be advised what the allegations are, and what the consequences may be if they are found to be true. It is important that the employee is aware at commencement of any meeting of the seriousness of the situation.
- The employee should be shown whatever evidence is available of the alleged problem.
- The employee should have a reasonable period of time to consider the information and respond.
- Employees are entitled to be accompanied by a support person in any such meeting and should be invited to bring someone along if they wish.
- If the employee has explanations or provides additional information the employer needs to be able to show that they have reasonably considered that information.

The general tenor of the relationship needs to show that the employer has not approached the meeting with a predetermined outcome in mind.

A common cause of personal grievance complaints arises from disputes over (possibly inadequate) procedures and what has been said at the meeting. For that reason it is highly desirable that a written record be kept of meetings (and procedures) where possible supported by the employer having their own witness at the meeting. It is not at all unusual for a dismissal to be appropriate, but an incorrectly followed process, may see costs awarded accordingly.

Personal grievance processes can be expensive to an employer both directly and indirectly. For example, the Employment Relations Authority records for an indicative 6 months July – December 2019 record a total of 83 cases of which 69 (83%) were in favour of the employee. Damages awarded range between $3000 – $16,000 and costs awarded against the employer were commonly in the range $2000 – $5000. Note, that figure excludes the employer's own legal costs. Indirect costs incurred include the substantial time preparing for and then attending hearings plus the stress involved and possible reputational damage.

Special Leave

From 1st April 2004 leave has been governed by the Holidays Act 2003. After six months' continuous employment, an employee is entitled to a minimum of five days special leave. After each subsequent 12-month period they are entitled to an additional five days' paid special leave. Any leave that is not taken can be accumulated up to a maximum of 20 days. Employment agreements can provide for more generous sick leave provisions than the minimum.

Special leave can be taken only when:

- The employee is sick, or injured, or
- An employee's spouse or partner is sick or injured, or
- An employee's dependent child or dependent parent or spouse's dependent parent is sick or injured, or

- The employee suffers a bereavement.

Employees are required to inform the employer of their sick leave requirements at the earliest opportunity, preferably before the day required, or within four hours of the normal starting time. If the employee has a non-work accident he can still be paid for time off work if he has any unused special leave.

The employer can ask for written evidence from an employee (at the employee's cost) regarding the sick leave if it extends to 3 or more consecutive days. The employer can also require evidence for less than 3 days sick leave but this will be at the employer's cost.

Often problems for an employer arise when an employee is persistently ill or has a long-term injury that limits normal work capacity. These factors can provide grounds for terminating employment, but that decision must be taken as a result of a fair and reasonable process. The normal process for raising, progressing and determining problems of employee performance should be followed and the Mediation Service of the Department of Labour can be asked to help resolve the dispute.

Some of the issues that should be shown to have been considered include:

- Duration of illness and impact on business.
- Recovery prospects.
- Length of service.
- Options to provide alternative work.
- Reasonable communication to the employee about the impacts of their illness and possibility of termination.

Interestingly, some court cases have gone so far as to effectively state that the employer has a duty to dismiss the employee rather than continue to let them work. This should not be taken for granted, as every case will be decided on its own merits as to what is "fair and reasonable" but is nonetheless indicative of the standards that can be applied.

For the purposes of this section, a worker suffers a bereavement, either on the death of his or her:

- Spouse; or
- Parent; or
- Child; or
- Brother or sister; or
- Grandparent or grandchild; or
- Father-in-law or mother-in-law.

On any other occasion on which the employer accepts that, by reason of the death of any person, the worker has suffered a bereavement.

In any of these circumstances, after six months' continuous employment, an employee is entitled to bereavement leave of up to 3 days. The employee is entitled to leave for every bereavement and there is no maximum or cumulative entitlement. The three days does not have to be continuous, but must be in connection to the bereavement. For example, there might be one day for the funeral, one day for legal matters, and one day for unveiling, with the leave spread over any period.

With regard to the death of any other person, an employee may take one day's bereavement leave if the employer accepts that the employee has suffered a bereavement, after taking into account various factors such as the relationship of the deceased to the employee, cultural responsibilities etc... While this is discretionary, it is important to be able to show that reasonable consideration has been given to such a request.

Domestic Violence Leave

From April 2019 once an employee has been employed with an employer for 6 months of continuous employment the employee becomes entitled to up to 10 days (per annum, non-cumulative) of paid domestic violence leave. The employer is required to have a comprehensive "victim protection" policy providing the necessary support to affected employees.

Similar to special leave, affected employees can request time off or an appropriate variation to their working arrangements. The employer is entitled to ask for appropriate proof. Why employers should be responsible for these non-work-related issues, when they are not responsible for non-work-related accidents, has not been explained.

Deductions

Deductions from an employee's wages can only be made with their consent. It is extremely desirable that such consent should be in writing. The employee can withdraw this consent in writing at any time and the employer should then stop the deductions within two weeks or as soon as practicable. This is one of the areas that should be covered in an Employment Agreement and preferably even a pre-employment letter.

Deductions might be authorised for things such as:

- Overpayment due to absence without leave.
- Repayment of advances.
- Failure to return clothing / equipment provided.
- An employee's requirement by law to make payments (e.g. child support).

A written employment agreement may include a clause giving the employer permission to deduct wages if an employee resigns without giving the required notice or has been paid holiday pay in advance. If the employee has signed the agreement, this can be taken as written consent for the employer to make this deduction.

KiwiSaver

KiwiSaver is a voluntary work-based savings initiative to help New Zealanders with their long-term saving for retirement. It is open to all New Zealanders aged under 65. The Inland Revenue Department's (IRD) website (*www.KiwiSaver.govt.nz*) provides further information on the benefits of joining KiwiSaver.

With the introduction of the KiwiSaver regime, employers are required to make compulsory employer contributions in respect of any employee who is over 18 and making contributions from their salary or wages to the KiwiSaver scheme or complying superannuation fund. Compulsory employer contributions are 3%.

An employee's take home pay cannot be reduced because of the fact that an employer must make a compulsory employer contribution when the employee joins KiwiSaver. I.e. employer

contributions must be paid in addition to an employee's gross salary and wages, unless through good faith bargaining employers and employees agree otherwise.

Employers also need to provide new employees with information about KiwiSaver within 7 days of commencement. An employer is not obliged to give advice on KiwiSaver to employees and should instead encourage them to seek advice from an independent advisor.

Employees are automatically deemed enrolled in KiwiSaver upon commencement of employment but have an option to "opt out" between 14 – 56 days from commencing employment upon completion of the relevant IRD form. Refer to this *website* for more information.

Holiday Pay

Complaints about holiday pay are a frequent cause of action. Holiday pay must be calculated by using the ***greater*** of:

- Average weekly gross earnings for the full year, or
- The amount calculated by multiplying the ordinary hourly rate of pay for the number of hours normally worked each week (the four weeks prior to the holiday period to be considered).

The average weekly earnings upon which holiday pay needs to be calculated includes ***all*** taxable wages, overtime pay, taxable allowances, previous holiday pay, travel time, etc... Upon cessation of employment the employee is entitled to be paid all their remaining holiday pay (if not paid out) plus 8% of any part year entitlement.

The minimum entitlement is for four weeks paid annual leave. Employers can direct as to when employees take that annual leave but must give employees at least 14-days notice (unless the employee agrees otherwise). Employers must allow employees at least two weeks of uninterrupted leave within six months of qualifying for annual leave, with the balance of the leave within the next six months.

Employees can ask their employer to pay out in cash up to one week of their 4 weeks minimum entitlement to annual holidays per year. This is subject to agreement with the employer. The employer should ensure they have written confirmation of the request from the employee to avoid possible penalties. Refer to this *website* for more information.

Redundancy

In the unfortunate situation where redundancy arises there are a number of issues to be worked through, including:

- The first consideration for an employer is any relevant provisions in the Employment Agreement and / or the Employer's Policies and Procedures.
- Many "home-grown" employment contracts do not even consider the issue of redundancy. This is a dangerous situation as the Employment Relations Authority can then determine how much redundancy must be paid if it is not specified in the agreement. This commonly results in entitlements of between two to four weeks redundancy pay for the first year of employment and one to two weeks for each year thereafter.
- However, if your employment agreement states that there will be no redundancy (other than perhaps normal period of notice) then generally that is the end of the matter ***except*** if consultation over the redundancy has not been undertaken in good faith.

- For a redundancy to be justified it must result from a genuine redundancy situation i.e. attempting to use redundancy as an excuse to dismiss for poor performance is unjustified.
- An employer must act in good faith and should not deceive or mislead the employee. Good faith requires the employer to act fairly and reasonably.
- Best practice is that an employer will usually be expected to consult with the employees and obtain feedback before deciding whether to make the job redundant or which role should be made redundant. What is considered a fair and reasonable timeframe for this process will be dependent on particular circumstances.

Following the correct process is essential. There have been a number of cases where the Employment Relations Authority has found that a redundancy was genuine, but the process followed was incorrect. Hurt and humiliation awards have ranged between $5,000 and $15,000.

Obligations of good faith do not alter the employer's rights to manage and structure the business as they see fit. Consultation does not mean agreement. Once a reasonable consultation process is complete the employer is entitled to make the final decision on a restructuring process.

Termination

If any employee is dismissed they have the right under the ERA to ask for a written statement of the reasons for dismissal. This request can be made up to 60 days after dismissal and the employer must provide the written statement within 14 days of such a request. Failure to do so may allow the employee to raise a grievance after the 90-day limitation period.

All dismissals must be for good reason and dismissal must be carried out fairly. As with redundancy, there have been a number of cases where termination is deemed to be appropriate, but the procedures (as broadly defined in the section on Personal Grievances) have not been fairly carried out.

Unions

Employees have an absolute right to choose to join, or not join, a union. It is illegal to use "undue influence" to make an employee join or not join or resign from a union.

Union representatives have the right to enter workplaces if they reasonably believe:

- That union members work there, or
- That employees covered by the union's membership rule work there.

Any representative must be allowed to visit the workplace provided they:

- Do so at a reasonable time.
- Act reasonably in regard to normal business operations.
- Comply with health and safety procedures, and
- Notify the employer of the reason for entry, the representative's identity and authority.

Where there are union members, eligible employees are entitled to Employment Relations Education Leave to undertake approved courses in employment if their union allocates such leave to them (paid). As with employee health and safety representatives, there is a maximum number of days allowed for such leave, depending on the size of the workforce.

Summary

It's a minefield out there! Take care. All the preceding comments have been given in "good faith" but will be subject to each unique set of circumstances. Take specialist advice where necessary. A good employment relations / HR Specialist consultant is a valuable member of your team.

ACCIDENT COMPENSATION

The Accident Compensation Corporation (ACC) is a compulsory Government insurance that covers injuries – no matter what happened, where it happened or whose fault it is.

The ACC scheme is designed to help any individual who is injured and suffers a loss through accident. The scheme operates by collecting levies from businesses, motor vehicle registrations and petrol levies and uses this to pay for:

- Prevention - ACC work with partners to reduce the incidence of injuries and promote healthier, safer work environments through education and awareness.
- Care - You, or your workers, have immediate access to the necessary care in the event of an injury, as well as temporary cover for loss of income.
- Recovery - The injured person is covered during the recovery process and rehabilitated to enable them to return to work.

There are 5 different accounts ACC has to fund different injury type:

1. Work Account - The Work levy is paid into the Work Account to fund cover for injuries that happen at work. It insures and protects businesses' most important asset – their people.
2. Earners' Account - The Earners' levy is paid into the Earners' Account to fund cover for injuries that happen during everyday activities, e.g. on the sports field or at home doing DIY.
3. Motor Vehicle Account - The Motor Vehicle levy is paid into the Motor Vehicle Account to fund cover for people injured on public roads involving a moving vehicle.
4. Non-Earners' Account - There are people in New Zealand who don't pay levies but still need ACC support if they're injured, e.g. children, beneficiaries, students or visitors to New Zealand. Funding to help them comes from the Government through general tax.
5. Treatment Injury Account - ACC uses the Treatment Injury Account to fund cover for injuries that are caused by, or happen during, medical treatment. It's funded by both the Earners' and Non-Earners' Account depending on whether the injured person is employed.

Everyone pays an ACC cover in one way or another – if you drive a car, a portion of the registration is for ACC, if you have a diesel vehicle, a portion of the road user charges have an ACC levy, businesses pay directly to ACC via levy invoices and employees pay a portion of ACC through the tax deducted by Inland Revenue.

There are three types of cover for businesses:

- Self-Employed – This is where you pay the full cost of ACC levies yourself. The easiest way to tell if you are self-employed is to look at your ACC invoice. The term self-employed also covers anyone getting Withholding Tax income. If the suffix on your invoice is "S", you are self-employed.
- Employer / Company– The person who owns the business. You pay the ACC levy for employees while they are at work via an invoice sent directly from ACC. This invoice also

covers non-PAYE Shareholders. There will be an “E” or “D” suffix on your invoice.

- Employee – You pay the cost of ACC for outside of work injuries. This portion is deducted with your tax so you don’t pay a separate levy for it. This means you have ACC cover if you are not at work – so you are covered no matter where you are.

Cover

It is worth knowing what cover you may get if injured.

ACC does not cover illness or non-work-related diseases or infections. In many cases gradual process injuries will be investigated before any claim is accepted. There needs to be a clear reason for the degeneration that relates to occupation, rather than an age or medical related issue. Under all ACC cover, claimants are entitled to medical expenses and rehabilitation costs and where eligible may also receive compensation for lost income due to injury.

Compensation for Specified Permanent Injuries

There is compensation available to any individual, whether or not they were an employee or had worked before, for specific injuries resulting in the loss of a limb, or other bodily function, or for an injury causing loss of enjoyment of life, etc... This is a lump sum payment. The amount of the payment is determined by set rates paid for each type of injury.

Reimbursement of Specialist Costs

ACC will generally pay for all direct costs incurred in medical treatment related to an accident, however you are also entitled to be compensated for indirect costs, such as travel expenses incurred in visits to specialists or hospitals. Provided the appropriate claim is made, these expense repayments can be based on Public Service Mileage Rates and can result in a considerable amount of reimbursement. Note that a list of services that ACC will fund can be found on the *ACC website*.

With the reduction in the amount ACC will pay specialists, it is now quite common for a gap to exist between what is charged and what ACC will reimburse. This gap is a cost which must be paid by the injured person. An example of this is physiotherapy treatment.

Earnings Related Compensation

Compensation

When someone is injured, ACC may pay up to 80% of their average wages during the time they are unable to work. The cost of the first week's payment (at 80%) is met by the employer if the injury is work related.

Self Employed

In your first year of business, you may not make much (if any) income. Because of this, any compensation you may get from ACC is likely to not be enough to live off until you can return to work. ACC have another cover that you can apply for – CoverPlus Extra (CPX). You can apply for CPX before starting work, so you are covered for injury from day 1. Refer further details below.

Employees

In terms of establishing entitlement to Accident Compensation, if you are receiving a weekly wage from the business, then ACC would normally look at the last four weeks’ gross taxable earnings from the Company paid to you, and calculate your entitlement to compensation accordingly.

If the claim is likely to go over a 16-week timeframe then ACC will look at the gross earnings for the last year and will pay up to 80% based on that amount. If overtime has been worked, in both cases, then this will be included into the calculation. If the worker has recently been hired, ACC will request the earnings information from the previous employer in order to establish the correct compensation.

In certain circumstances it is possible to apply for higher earnings-related compensation than you would normally be entitled to. This may apply particularly where you have been trading for the bulk of a financial year and have established a regular pattern of what your earnings would likely have been for that year. ACC may ask to see accounting records to prove that you are entitled to more compensation. The assessment of the income can take up to 5-weeks, so you need to be prepared to be without any income for a short time.

Products for Self-employed

ACC CoverPlus – This is the standard default cover. It covers self-employed for at work and outside of work injuries. This can provide up to 80% cover of your last year's earnings.

The invoice you'll receive will be based on your last tax return, once ACC have received it from Inland Revenue.

The invoice is usually based on your actual income, however, does not always reflect the hours you work.

The invoice will tell you if you are part time (less than 30 hours per week over all sources of income) or full time (more than 30 hours per week). If you worked full time hours, but your income was low, you may not get enough compensation if injured. You also need to prove loss of earnings to ACC and cannot continue to earn income while injured on this cover. To fix this ACC have another option called CoverPlus Extra (CPX).

CoverPlus Extra (CPX)– An alternative; you set the cover levels when you apply for the cover. You can continue to earn income even while off work due to injury. It pays 100% of the pre-agreed earnings after tax. You do not have to prove loss of earnings. The advantage of CPX is that once level agreed with ACC, it provides certainty of cover.

It is invoiced in April every year and is based on the level of cover agreed to – not what your actual income is.

Refer to the following ACC links regarding CoverPlus

- *Types of cover for the self-employed*
- *Comparison of CoverPlus and CoverPlus Extra*
- *CoverPlus application form*

The Levy

Levy rates are based on the risk for your industry. Different industries have different risks which determines the rate of your levy, e.g. an accountant is lower risk than a logger, so their levy rate is lower.

ACC uses the business industry description (BIC) to determine the classification unit (CU). Each CU, such as Logging (03020), has accompanying rates, which are used by ACC to calculate the different levies to pay.

The Working Safer Levy is collected by ACC for the Ministry of Business, Innovation and Employment (MBIE) to fund WorkSafes activities. This is charged at a flat rate of $0.08 / $100 of liable payroll or income.

There is a minimum and maximum amount of levies that can be charged for a full time person per year:

NOTE:

CoverPlus

Year starting from 1 April	Maximum Liable income level	Maximum liable income level
2019 - 2020	$36,814	$128,470
2018 -2019	$32,760	$124,053

Table 5.2: CoverPlus

CoverPlus Extra

CoverPlus Extra uses your nominated level of cover instead of your liable income.

Year starting from 1 April	Maximum level of cover	Maximum level of cover
2019 - 2020	$29,453	$102,776
2018 -2019	$26,208	$101,029

Table 5.3: CoverPlus Extra

Remember, under CPX you receive 100% of the cover rather than 80% of gross income.

If you employ staff

You will only pay levies on an individual's earnings up to the maximum level. If an employee on your payroll earns more than the maximum, we'll only levy you for the maximum.

Year starting from 1 April	Maximum liable income for employees
2019 - 2020	$128,470
2018 -2019	$126,286

Table 5.4: Maximum Liable income

ACC Levy Collection and Invoicing

ACC issues all ACC invoices for employers and self-employed earners as part of its annual invoicing cycle.

Generally, invoices are sent around the same time each year, although reassessments can happen at any time of the year:

- Employer's invoices are posted from June.
- Non-PAYE Shareholder employee invoices are posted from July.
- Self-employed invoices are posted from August.
- CPX invoices are sent in April and early May.

If you disagree with the invoice, or believe the invoice is incorrect, contact the ACC Service Centre for more information about requesting a reassessment – you still must pay or make an arrangement to pay the invoice by due date.

ACC have interest free payment plans available and a number of different ways to pay, available at this *website*.

If the levies are still unpaid two months after the invoice date, 1% interest based on the outstanding amount will be charged each month. An additional penalty of 10% may be added on the amount outstanding every six months. The debt may also be referred to a debt collection agency.

If you have CoverPlus Extra and don't pay your levies, the cover is cancelled and you revert to the standard CoverPlus cover.

Reassessment

Provisional levy invoices issued for employers and shareholder employees for the upcoming year may be estimated either up or down by you subject to ACC approval. ACC issue the provisional invoice based on your previous year's liable earnings. If you think this figure should be more or less, talk to ACC or your accountant about your options for changing the invoice. The original provisional invoice is still payable by the due date until reassessed. Remember to contact ACC if you have ceased employing, reduced staff or you have added another crew as this will affect the levies you have to pay.

Employer's Liability for Compensation

An employer will receive written confirmation from ACC if a work-related claim has been accepted. It is important that you act promptly if you do not agree with the claim allocated to your company.

As an employer, you are liable for the first week of lost earnings only where a work-related injury results in time off work; if the injury is non-work-related then then you, the employer, are not liable and the employee in most circumstances is unpaid until the second week. ACC considers a week to be 7 days and will pay compensation from the 8th day onwards. If you make a payment during the first week for a claim that is accepted by ACC then you are entitled to have this taken into consideration against the coming years levy. This is known as the 447 process.

For a work-related injury that involves time off work, the employer is responsible for the first week of lost earnings and this includes any other employer (secondary or primary) from whom the injured person may have received earnings in that week. ACC will request earnings information from any employer with the claimant on their payroll at the time of the injury. While the claim itself will be attributed to just one employer, the compensation information will be such that the claimant will receive 80% of the usual amount they would have been paid by the employers together over a standard week.

ACC will pay for subsequent weeks off work once you have provided ACC with an Employee Earnings Certificate (ACC3) and the employee provides a Medical Certificate.

Experience Rating

Experience Rating is a loading or discount applied to your levies and included in your annual invoice. Whether you get a loading or discount depends on how well your business has performed with Health and Safety. ER is calculated after you have been in business for three (3) years.

ACC has two types of Experience Rating depending on the size of your business and the levies you pay:

1. Smaller businesses:

   The No Claims Discount (NCD) – This adds or discounts up to 10% of your invoice, this is for businesses who have paid less than $10,000 in the Workplace levies for the last three consecutive years.

   How you get a discount - You will get a 10% discount on your Work Levy if over the three-year period your business has had no weekly compensation days and no accidental death claims.

   No changes to your Work levy - Your Work levy will stay the same if over the three-year period your business had between 1-70 weekly compensation days and no accidental death claims.

   How you get a loading - You will get a 10% loading on your Work Levy if over the three-year period your business had over 70 weekly compensation days or any accidental death claims.

2. Larger businesses:

   Experience Rating (ER) - This can add up to a 75% loading or give you a discount of up to 50%.You can qualify for ER if your business has paid a Work Account Levy of $10,000 or more a year for three years in a row or your business group has paid a combined Work Account Levy of $10,000 or more a year for three years in a row.

   ACC look at your claims history for work-related injuries over the three-year period. By comparing this against your levy risk group, they then work out if you will get a discount or a loading, and by how much.

ACC consider:

- The number of weekly compensation days your employees have.
- The number of claims for your employees with medical costs of over $500.
- Any accidental death claims.

They will also look at your claims history and compare it to others in your levy risk group. Older claims carry less weighting, putting more emphasis on your more recent claims experience.

	Experience Rating bands	Final discount/loading
Discount	<= -45	-50%
	< -45 to -35	-40
	< -35 to -25	-30
	< -25 to -15	-20
	< -15 to -5	-10
Neutral	> 5 to 15	0
Loading	> 15 to 25	+10%
	> 15 to 35	+20%
	> 35 to 45	+30%
	> 45 to 55	+40%
	> 55 to 65	+50%
	> 55 to 65	+60%
	> 65	+75%

Table 5.5: claims history and compare

There are so many different parts to ACC that it may be best to get some information and advice before you start in business. This is so you can make sure you are set up right, from the beginning so you can concentrate on what counts – being in business.

(Editor: We wish to acknowledge Sue Walton of ManageACC for this contribution to the ACC overview section of this chapter. ManageACC also work with FICA and may be contacted on (*www.managecompany.co.nz*)

GUIDELINES FOR BETTER EMPLOYMENT RELATIONS

The purpose of this section is to suggest the basis of a formal system for employment and termination. The advantage of this is that you don't have to constantly redevelop how you deal with employees; you can just use the relevant templates from this handbook.

How far you go in developing formal systems or completing the forms is up to your individual

circumstances. The larger the operation and number of employees, the more desirable it is to formalise processes. Even though this may increase your paperwork, the opportunity to get things wrong and suffer the downside consequences if no system is in place increases with the scale of operations.

Advertising for New Employees

Give information about the job skills and experience required and outline the job. Mention that wages are governed by the experience of the applicant.

Application forms

Under the Privacy Act 1993, no employee information can be given to anyone else without the employee's permission. Only that information relevant to a job can be requested. Any employee or job applicant can view any records relating to them – so don't write any notes on their files that you would not want them to see!

Have prospective employees fill out job application forms and health questionnaires before an interview. An example of an Employment Application Form can be found *here*. This will help you assess their work history and skills. Contacting referees / previous employers is always recommended.

Check for any chronic health problems that have the potential to load your ACC levies. An example Health Questionnaire is *here*. These questionnaires may not however ask for any information not related to the job. Pre-employment health screening to record baseline health data may help assist avoiding work injury compensation claims relating to historic issues.

Interviewing Applicants

The purpose of the interview is both to assess the prospective employee and for them to explain reasons why they want to work for you. A sample guide for conducting employment interviews can be found *here* and for assessing applicants *here*.

Written Job Description / Employment Agreements

Employees must have a clear understanding of the employer's expectations, so a written job description helps this understanding. Issues associated with employment agreements have previously been covered in the preceding sections.

Employee Induction

When introducing a new employee to the crew it is useful to use a checklist to ensure all the necessary steps have been taken. An example of a new employee induction checklist can be found *here*.

Performance Management

Regular Performance Management System provides a formal process to evaluate your employees and provide directions for development. This formal process may be particularly valuable in regard to new employees still on a probationary or trial period.

It is also useful for documenting the skills auditing and training section of your Safety Plan. It can

also document performance issues (as written warnings if performance needs to improve). In this case you can use one of these forms and go through what that person was hired to do, what they have learned since starting, what they are good at, what they need to improve on and the time you both agree they have to demonstrate an improvement.

A sample employee performance review form can be found *here* and is useful as part of a Performance Management System. This is a documented system so you don't have to work out something new each time you have a performance issue with an employee.

Termination

There are several ways in which employment relationships may be ended. The most common ones are.

- Fixed-term agreements - A fixed-term agreement can be ended when the term in the agreement expires. However, the agreement must have a fixed term for genuine reasons. An employee who believes that the job was really a permanent one can take a personal grievance for unjustified dismissal.
- Resignation - Employees may resign at any time, provided they give reasonable notice. What is reasonable will depend on the circumstances, what is agreed between the parties and what is provided in the employment agreement.
- Forced resignation - If an employer puts pressure (directly or indirectly) on an employee to resign or makes the situation at work intolerable for the employee, it may be a forced resignation or "constructive dismissal". If an employee has been forced to resign, they may have a personal grievance.
- Retirement - In law, there is generally no set age to retire from work. Employers cannot require employees to retire just because of their age. There is an exception to this rule if the parties have a written employment agreement that was in force on 1 April 1992 and remains in force.
- Redundancy - The provisions of the employment agreement will apply.
- Dismissal - There must be a good reason for a dismissal and the dismissal process must be carried out fairly. Otherwise, the employee may have a personal grievance claim against the employer.

What is defined as “fair” depends on the circumstances, so it is worthwhile to keep in mind some general principles:

- Any relevant provisions in the employment agreement must be followed.
- If an employment agreement does not have a notice period, then reasonable notice must be given. What is reasonable depends on the circumstances.
- Employees have the right to be told what the problem is and that dismissal or other disciplinary action is a possibility. Employees must then be given a genuine opportunity to tell their side of the story before the employer decides what to do.
- The employer should investigate any allegations of misconduct thoroughly and without prejudice.
- Unless there has been misconduct so serious that it warrants instant dismissal, the employee should be given clear standards to aim for and a genuine opportunity to improve. The sort of conduct that warrants instant dismissal may be set out in the employment agreement.

- The employer should treat all employees in the same circumstances in the same way or be prepared to justify the difference.

Termination (dismissal) of employees should be considered a last resort. Guidelines for a process for resolution of employer / employee problems are suggested below. A documented Performance Management System as discussed earlier is a very good source of information for these procedures. Refer also back to *Personal Grievances* section for processes to follow.

Further Information

There is a wide range of information sources for further information about employment issues. These are both government and also there are many other free resources. Some sites that may be of particular assistance include:

Department of Labour: *www.employment.govt.nz/*

Ministry of Business Innovation and Development: *www.mbie.govt.nz/business-and-employment/employment-and-skills/health-and-safety/*

HR toolkit: *www.hrtoolkit.co.nz/*

Employers and Manufacturers Association: *www.ema.co.nz/Pages/Home.aspx*

Many legal firms also have sites with access to free overviews of legal and employment related issues.

CHAPTER 6

HEALTH & SAFETY / ENVIRONMENT ISSUES – SOCIAL LICENCE TO OPERATE

CHAPTER 6

HEALTH & SAFETY / ENVIRONMENT ISSUES – SOCIAL LICENCE TO OPERATE

Contractors will be aware of the importance of health and safety and the environment to their operations this chapter focuses on the relevance of this to their business and also an overview of some of the compliance issues and costs associated with these areas.

Topics covered include:

Introduction

Compliance

Action for Employers

Implications for contractors

Developing a safety culture

Person in Control of the Business Unit (PCBU)

Environmental management

The editors wish to acknowledge the assistance provided by Fiona Ewing, National Safety Director of the Forest Industry Safety Council, in both reviewing and contributing to this Chapter content.

INTRODUCTION

It is not the purpose of this publication to provide a detailed guide around environmental standards and H & S systems and procedures. Those are direct operational issues and there are many resources available for that which can be tailored to specific contractor needs and circumstances. Some of these resources are referenced at the end of this chapter.

This publication focuses on the "Business" aspects of logging and recognises that the environment / H & S is a vital part of successful business processes. This chapter provides an overview of issues, the importance of these to the business and industry and the consequences of getting it wrong.

In particular is the concept of Corporate Social Responsibility or what is commonly referred to as "social licence" to operate. In a nutshell if an industry is not seen to be acting in a manner acceptable to society in general then it is exposed to sanctions and restrictions that will greatly compromise industry ability to operate profitably.

This requirement is often called the "triple bottom line". In summary this requires that any long-term sustainable industry needs to operate considering not just the need to generate a profit, but also to do that in a manner that is both environmentally responsible and also rewards its labour force appropriately and maintains their safety.

Diagrammatically this has been represented the figure number 6.1 below:

Figure 6.1: Social Licence in Forestry

Evidence of the importance of this social licence in regard to the forest industry is readily available with the most notable recent incidents involving negative feedback around health and safety record involving deaths in particular, resulting in a significant strengthening of penalties. Ultimately this resulted in the industry formation of the Forest Industry Safety Council (FISC) and other initiatives such as Safetree, basically industry jumping before it was pushed.

On the environmental front significant flooding incidents in various parts of the country e.g. Nelson, reinforced the development of the National Environmental Standards (NES) and recently reflected in widespread negative publicity and ultimately prosecutions in regard to Tolaga Bay incidents.

If this appears abstract and unrelated to the BMOL then the following quote neatly summarises the issue:

"If ethics fail to persuade you, the bottom line should". (Caribbean Business, May 2004)

The most important drivers of productive logging operations are safe work practices. Productivity and safety are not activities to be traded off against one another. In the history of logging, there have been many low productivity operations that were also unsafe; on the flipside productive long-term operations will have a safety-oriented focus.

The basis for productivity improvement, and hence profitability improvement in logging, is the management of the health and safety of the workers in the crew.

A good safety and environmental record is critical for any organisation and requires good management practices to be successful. This is more than just common sense – the risks at stake are considerable, and include significant direct and indirect costs:

- Costs of lost production.
- Repair costs.
- Costs of removing hazards.
- Damaged business image as a result of being prosecuted.
- Possible stand down and / or loss of contract.
- Stress experienced by people being prosecuted.
- Legal costs and court fines.
- Increased ACC costs.

DEVELOPING A SAFETY CULTURE

International research has found consistently strong evidence of the benefits of a positive safety culture. In order of magnitude, these benefits included:

- Decrease in injuries and lost time.
- Decrease in accidents.
- Increase in safe behaviours of workers.
- Increase in psychological well-being.
- Increase in perceived management commitment.
- Increase in job satisfaction.
- Decrease in physical symptoms.

The international evidence has also identified the necessary conditions for developing a positive safety culture. These can be categorised into four areas:

1. Management, including:
    - Leadership style, supportive and competent management, good two-way communication, management commitment and attitude to safety, trustworthy management, management transparency.
2. Worker, including:
    - Worker attitudes to risk-taking, relationships on site, opportunities to express views, worker involvement in early planning of work, safety reviews and investigations.
3. olicy, including:
    - Safety management systems, worker engagement, injury-reduction programmes with a focus on critical risk areas, workplace health (both work on health and health on work), regular safety evaluation and reviews.
4. Organisational, including:
    - Worker and safety committee interactions, inclusion of all workers in safety culture, training, managing work pressures, actively rewarding safety.

The research concludes that highly visible management commitment is the best way to foster safety culture improvements. And related to this, most of the international evidence supports education and training interventions to improve safety behaviours and reduce unsafe behaviours.

A key industry resource in developing both a safety culture and providing practical tools to assist is the **Forest Industry Safety Council** which in conjunction with Safetree provides access to a range of resources. Contractors are recommended to access these at:

https://safetree.nz/

Safetree runs a formal contractor certification program. While not compulsory this does provide a formal process for a contractor to show their commitment to H & S principles at a high standard. The certification is seen as highly desirable and a number of major corporate forest owners now require their contractors to be Safetree certified.

Further information on the FISC work programme can be accessed at:

https://www.fisc.org.nz/

COMPLIANCE – THE MINIMUM

Principal Acts

Three main Acts comprise New Zealand's health and safety legislative framework:

- The Health and Safety at Work Act 2015 (HSWA) and amendments, is the principal health and safety statute, and aims to prevent harm occurring in the workplace. A useful overview is provided at *www.worksafe.govt.nz/managing-health-and-safety/getting-started/introduction-hswa-special-guide/*
- The Hazardous Substances and New Organisms Act 1996 (HSNO Act) provides for the management of hazardous substances and new organisms in the workplace.
- The Injury Prevention, Rehabilitation, and Compensation Act 2001 establishes New Zealand's compensation and rehabilitation system.

The HSWA and HSNO Acts provide a performance-based system under which duty holders, such as persons conducting a business or undertaking and who control places of work, employers and employees and others, are required to take all practicable steps to remove, control, or otherwise manage hazards in the workplace.

The HSNO Act is part of New Zealand's framework to ensure that people in workplaces are not harmed by exposure to any such substances. The legislative framework set out by the HSNO Act is similar to that provided for by the HSWA in that there is a principal Act, a suite of regulations made under the principal Act, and approved codes of practice and approved guidelines (Figure 6.1 below).

The Injury Prevention, Rehabilitation, and Compensation Act 2001 (IPRC Act) provides the basis for New Zealand's no-fault, 24-hour insurance scheme for work-related injury and disease (ACC). It also provides a mandate for the ACC to undertake activities aimed at preventing and reducing the incidence of injury at work, including the use of incentives and penalties. This has been covered in more detail in *Chapter 5*.

Overall, New Zealand's legislative system provides for a relatively simple, performance-based and consistent approach to preventing harm in the workplace.

Practicable steps must be taken – and be seen to be taken – so that employees, contractors and visitors:

- Are safe at work;
- Are alerted to all site risks;
- Are informed about the risks, the controls that are in place to manage these risks, emergency procedures and the location of safety equipment;
- Are involved in health and safety matters;
- Are trained to work safely; and
- Do not harm others.

Underlying the primary HSWA are a range of supporting regulations and guidelines, an overview of which is provided below:

HEALTH AND SAFETY LAW

Health and Safety at Work Act 2015 (HSWA)

LEGALLY BINDING

↓

Health and Safety regulations

- Expand on health and safety duties in HSWA.
- Set standards for managing certain risks and hazards.

LEGALLY BINDING

↓

Safe work instruments (SWIs)

- Set out technical rules.
- Approved by the Minister.

LEGALLY BINDING

Table 6.1: Health & Safety Law

WORKSAFE GUIDANCE AND INFORMATION

Includes:

- **Positions:** WorkSafe's approach to particular issue.
- Regulatory function policies: provide information on WorkSafe's approach to meeting regulatory functions.
- **Operational policies:**
  - provide information on 'how WorkSafe's decides'.
  - give more details to support regulatory function policies.
- **Policy clarifications:** aim to 'clear things up'.
- **Approved codes of practices (ACOPs):**
  - set our WorkSafe's expectations about how to comply with legal duties imposed by HSWA and regulatios.
  - are not the only way to comply with HSWA and regulations
  - other practices can be use to achieve complieance as long as the level of helat and safety is equivalent to, or higher, than he standard set in an ACOP.
- **Good practice guidelines:** show WorkSafe interprets the law, and may indicate how the law will be enforced
- **Quick guides:** provide and overview of legislative requirements, good practice, or other information for special topics in an easy-to-read format.
- **Special guides:** provide information on notable topics (eg legislative change).
- **Fact sheets:** provide concise information on a topic.
- Technical bulletins: describe a known or identified issue relating specifically to machinery or equipment, or provide in-depth tecnical information or clarification on specific topics.
- **Safety alert:** short timely responses to an accident (or patterns of incidents) with a view to prevent a similar incident occuring.

Table 6.2: Work Safety Guidance and Information

Penalties

On the safety front the key legislation is the HSWA, penalties now range up to 5 years imprisonment and $600,000 fines for individuals or up to $3 million for companies. These penalties are up to 5 times higher than applied under previous legislation. While there was initially some uncertainty around the level of penalties to be imposed the High Court has now provided guidelines for fixing fines for individuals, namely:

- Low culpability (up to $250,000);
- Medium culpability (between $250,000 and $600,000);
- High culpability between $600,000 and $1 million); and
- Very high culpability ($1 million +).

The previous ability to insure against penalties has now been removed. However, it remains possible to obtain insurance against legal costs associated with a prosecution, and also costs of reparations that may become payable to affected parties.

Codes of Practice

In addition to the mandatory requirements, the Act allows for the development and approval of statements of preferred work practice. These are known as Approved Codes Of Practice (ACOP) and are the result of consultation between WorkSafe and affected industry members.

While compliance with ACOP is not mandatory a court may consider that non-compliance with ACOP in all matters it covers is non-compliance with the Act to which the code relates. However, an ACOP is only one means of demonstrating compliance and with new goal setting legislation in NZ it is possible to have other controls in place which meet or exceed legal obligations and are not covered in the ACOP. It is worth noting that the ACOP was last reviewed in 2012 and will not be reviewed while MBIE are working on other regulations associated with HSWA implementation.

Codes and guidance material are a useful industry resource. There have been many Codes of Practice and Guidelines published for the forest industry, the main one being the Approved Code of Practice for Safety and Health in Forest Operations (2012)

www.worksafe.govt.nz/topic-and-industry/forestry/safety-and-health-in-forest-operations/

Organisations and persons who apply codes or guidance as end users have said they are a good resource for developing in-house policies, procedures, practices or systems of work. They are used to:

- Identify hazards / risks;
- Determine controls or opportunities for improvement;
- Develop training materials;
- Determine workplace amenities and facilities; and
- Provide a benchmark against which H&S outcomes can be progressively improved, through work and workplace redesign, hazard / risk management, training and safe work practices.

An example of how some industry participants have applied the Forest Operations ACOP is to set slope limits for ground-based forestry machinery and provide guidance to harvest planners when deciding what machinery to use in felling operations.

Person conducting a business or undertaking (PCBU)

This is an important concept. Under the HSWA (Section 17) employers, principals and persons in control of the place of work must take all practicable steps to ensure that no contractor, subcontractor or employee of a contractor or subcontractor is harmed while undertaking any work.

A PCBU must ensure, so far as is reasonably practicable, the health and safety of workers, and that other people are not put at risk by its work. This is called the 'primary duty of care' (Section 36).

A further important concept is "officers" (Section 18). An officer is a person who occupies a specified position that allows them to exercise significant influence over the management of the business or undertaking. An officer is a director or senior executive within the company and therefore organisations can have more than one officer.

In broad terms this encompasses directors / partners who while not directly involved in an operational matter may still be deemed liable due to their position, responsibilities and decisions they make on behalf of the company.

Action for PCBU's

The Health and Safety at Work Act 2015 (HSWA) has strengthened responsibilities for everyone in the workplace, especially those at the very top. The legislation focusses on leadership, risk management and worker engagement across the supply chain.

Good operators are already doing many of the things HSWA requires. Essentially that is taking an active part in ensuring safety right through the supply chain and involving workers in identifying risks and the controls to manage them.

The main changes in the law that affect forestry:

1. Duty of care – Those with control over the work carry the responsibility, or duty, for ensuring safety and are responsible for everyone on site, even if they are not direct employees. They are now known as a "PCBU", or a Person Conducting a Business or Undertaking, and are usually a company, a business, not a person. Sometimes these responsibilities overlap with other PCBUs (businesses).
2. Officers must do due diligence – Officers of a company, people such as directors and chief executives, have a legal requirement to keep their fingers on the pulse of their business when it comes to safety. It is not acceptable to say they did not know about a health and safety risk.
3. Overlapping duties – Often more than one business will need to take action to keep workers safe. When this happens, each must – as far as is reasonably practicable – consult, coordinate and cooperate with each other over the safety controls they will take.
4. Reinforced worker engagement, participation and representation in health and safety – PCBU's are required to make sure everyone plays a part in ensuring safety, and that workers are able to have their say and are listened to.
5. Risk management – Knowing what the risks from the work are and ensuring everyone throughout the supply chain – including other businesses with responsibilities as a PCBU – understands the risks and the controls.
6. Critical risk areas - These are the risks that cause fatalities and serious harm injuries in

forestry.

- Driving.
- Tree felling.
- Breaking out / extraction.
- Man / machine interaction.
- Maintenance.
- Health – physical & psychosocial.

It is important to understand these risks in your business, have agreed controls in place which have been discussed and communicated to your workers and others who need to know about them and also what must be done if these controls are not in place on any given day. The latter is the key to deal with changing circumstances so that decisions are based on prior discussions and agreed processes rather than being addressed under pressure when the change occurs.

7. Hierarchy of control measures

PPE is the least effective control measure that can be used to prevent harm however it is often relied on in forestry. The table below outlines the hierarchy of control measures showing the most effective at the top of the table.

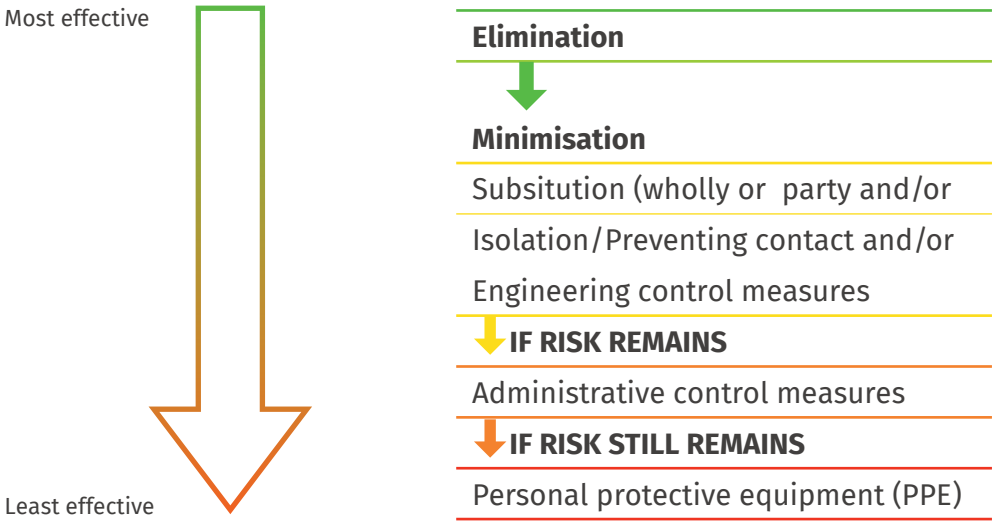


Figure 6.2: Hierarchy of control measures

If it is not reasonably practicable for a PCBU to *eliminate* risks to health and safety then they must minimise risks to health and safety, so far as is reasonably practicable, by taking one or more of the following actions that is the most appropriate and effective taking into account the nature of the risk:

a. *Substituting* (wholly or partly) the hazard giving rise to the risk with something that gives rise to a lesser risk:
b. *Isolating* the hazard giving rise to the risk to prevent any person coming into contact with it:
c. *Implementing engineering controls.*

If a risk then remains, the PCBU must minimise the remaining risk, so far as is reasonably practicable, by implementing *administrative controls*.

If a risk then remains, the PCBU must minimise the remaining risk by ensuring the provision and use of suitable *personal protective equipment*.

FURTHER INFORMATION

Additional guidance is available on the WorkSafe and Safetree websites.

Forest owners / managers have a duty of care to manage the health and safety risks that they are responsible for and as PCBU's to co-operate, co-ordinate and consult with you in relation to those risks and provide relevant information. While you may use forest owner / managers H&S systems or engage a consultant to help you establish safety management plans and your audit approach you and your workers must make your *own* plan. The plan should reflect the work you are doing, the risks associated with that work, the controls you will use to manage these risks, how you will engage with your workers and communicate this information to them and how you will respond to changes or upset conditions. And finally, what is your review process.

ENVIRONMENTAL MANAGEMENT

Resource Management Law

New Zealand's principal environmental and planning legislation that sets out how we should manage our environment is the Resource Management Act 1991 (RMA). Its purpose is to promote the sustainable management of all natural and physical resources (land, water and air), and its focus is on managing the adverse effects of activities on the environment.

A range of activities may require resource consent from Regional or District Councils, including soil disturbance and vegetation removal (harvesting). There are specific provisions under which directors and senior managers of a company (including contractors) may be found personally responsible for the acts or omissions of the company under the RMA.

The RMA makes special mention of the need to recognise and provide for, as a matter of national importance, "the relationship of Maori and their culture and traditions with their ancestral lands, water, waahi tapu and other taonga", and to take into account the principles of the Treaty of Waitangi. This is an important point for logging contractors and their workers, who may be working in unmarked sacred sites or discover artefacts during operations. In general, each Harvesting Plan should include a map marking any waahi tapu known to be present, and a copy of the resource consent (if appropriate).

National Environmental Standards (NES)

In 2019 new environmental regulations under the RMA were promulgated. These are called the National Environmental Standards – Plantation Forestry, or NES – PF. These have specific sections relevant to both afforestation and harvesting. Further details can be found *here*.

Hazardous Substances Law

Harvesting contractors also need to consider issues relating to other statutory authorisations outside the RMA. The Hazardous Substances and New Organisms Act 1996 (HSNO) provides for the management of hazardous substances and new organisms in the workplace.

HSNO originally established the Environmental Risk Management Authority (ERMA) to be responsible for the assessment and regulatory approval process for hazardous substances. This was subsequently Replaced by the Environmental Protection Agency (EPA)

The Ministry for the Environment administers the HSNO Act, although the EPA administers many functions. Responsibility for enforcing the HSNO Act falls to a number of Government agencies, among others the Department of Labour (in respect of workplaces). Further background to the EPA can be found at *www.epa.govt.nz/* and more specifically in regard to plantation forestry *www.mfe.govt.nz/land/land-acts-and-regulations/national-environmental-standards-plantation-forestry/about-standards*

The HSNO regime covers specific substances which are classified according to their potential hazardous properties, including:

- Flammability;
- Ability to accelerate a fire; and
- Toxicity to humans or the environment.

Where hazardous substances are being handled or stored at a particular site, a Handler's Certificate or a Location Test Certificate may be required.

Enforcement action under the RMA or HSNO Act is one means for regional and district councils or EPA to ensure all resource users comply with the terms of the Acts and their resource consents, or to stop operations that are in breach of consent.

Similar to H&S there are primary Acts then a range of regulations and standards i.e.:

Principal Acts Resource Management Act 1991 Resource Management Amendment Act 2005 Resource Management Amendment Bill 2009 Hazardous Substances and New Organisms Act 1996
↓
Regulations made under principal Acts, including **National Environmental Standards**
↓
National Policy Statements (MoE)
↓
Regional Policy Statements and Regional Plans (Regional Councils) **District Plans (District Councils)** **Certification standards (e.g. FSC)** **Industry codes of practice (e.g. ECoP)** **Best practice guidelines (e.g. FITEC BPGs)**

Table 6.3: H&S primary Acts

Environmental Values

There are a number of values closely associated with production forests: Forest operations can affect these environmental, commercial and social values, in both a positive and adverse way. Adverse impacts (the focus of the RMA) can be reduced through careful planning and supervision.

- Commercial Values and Sustainability

  The goal of sound environmental management is to ensure that all forest operations are

carried out in an efficient, economic and effective manner whilst meeting appropriate environmental standards and ensuring applicable environmental regulation is met or exceeded. This includes developing and maintaining the productive capacity of the forest site by the use of appropriate forest practices to ensure sustainable production.

- Soil and Water Values

  Include slope stability, soil structure, sedimentation, soil erosion and soil compaction, water quality, water yield, watercourse stability, stream life and other catchment characteristics both on-site and downstream.

- Scenic and Landscape Values

  Include visual impact of forest operations.

- Cultural Values

  Include historical, traditional and archaeological values.

- Recreational and Community Values

  Include the recreational opportunities the forest can provide, and assisting the community understanding of the environmental benefits of plantation forestry.

- Scientific and Ecological Values

  Include biodiversity and the representation of species or communities of rare or unusual flora and fauna and their habitat.

- Forest Health

  Includes protection against fire, diseases (pathogens) and pests (both plant and animal) by the use of appropriate forest practices.

- Neighbour and Off-Site Impacts

  Include the effects of operations on other people and their environment.

IMPLICATIONS FOR CONTRACTORS

The RMA is governed through the use of Regional and District plans. These plans can be revised, and exact liability is likely to be established through court cases.

Regional or District plans will set out regulations for consent requirements. These can include land use consent, water permit, discharge permit, subdivision consent or coastal permit. The main type of consent that could be required for forestry operations is a land-use consent. The District or Regional plans will place activities into five main categories depending on the extent of the adverse impact:

Permitted Activities: Consent to the activity is given.

Controlled Activities: Consent will be given subject to conditions.

Discretionary Activities: Consent will only be given at the discretion of the council and subject to conditions.

Non-Complying Activities: An activity contravenes a plan but is not prohibited.

Prohibited Activities: Prohibited by the plan and for which no consent may be sought.

Land Use Consent is typically gained by the land owner while operations such as road and landing construction and logging are typically undertaken by contractors. When letting logging contracts, forest owners and managers should give written operational requirements to contractors and carry out environmental monitoring and auditing both during and after the operation.

If there are no directions or guidelines from forest owners or supervisors, then all are liable (including contractors). Operators are fully responsible for their own actions unless they can prove that they were following directions.

Contractors must be comfortable with their environmental responsibilities under each Harvest Plan, and with the requirements of the contract. However, contractors need to know what good forest practices are, how to plan and manage such practices, and what the environmental effects of their operations are.

Managing Your Impact on the Environment

Most forest owners and managers, and some forest contractors, will have formal environmental management systems (EMS) in place to manage operations within their specific estates and operations. Environmental management systems (EMS) are a better means to ensure that your business manages the environmental aspects of your operations.

An EMS is a programme that runs on similar lines to a health and safety management system. It helps to give your processes direction and focus. By streamlining operational and production processes, you'll save money and have less impact on the environment. An EMS can achieve and maintain a measurable improvement in your environmental performance, through:

- Increased efficiency in materials and energy use leading to reduced waste and lower operational costs.
- Improved risk identification and management.
- Development of pollution prevention tools.
- Avoiding breaches of local, regional and national environmental laws, and consequent costs.

The main elements of an environmental management system are:

- Identifying those who have responsibility for environmental management, including crew managers and directors.
- Identifying and documenting all known and suspected environmental effects associated with your operations.
- Preparing a plan which:
  - Defines your environmental performance objectives and a timeframe for achieving them.
  - Clearly states the obligations and accountability of managers and staff for environmental performance.
  - Provides mechanisms for ensuring compliance.
- Establishing a process for regularly checking the adequacy of systems and procedures in relation to the environmental policy and management plan.

- Undertaking regular environmental audits to identify how well you are complying with your policy and meeting your own objectives, and the areas that require corrective action.
- Reporting publicly on your environmental performance against your company's policies and environmental performance measures through an annual environmental or triple bottom line report.

CHAPTER 7

CONTRACTS AND TENDERING

CHAPTER 7

CONTRACTS AND TENDERING

INTRODUCTION

It is common for contractors and especially new contractors, to have to submit a proposal for work. This Chapter covers suggestions for compiling and submitting a tender for a logging contract to a "forestry company". The "forestry company" could also be a consultant or farmer etc...

While tendering is often perceived as an attempt to keep costs down in the short term for forest owners and managers, it also provides an opportunity for contractors to propose new systems and technology and possibly to gain longer-term work on the basis of introduction of that new technology.

Ideally a high-quality tender process and ongoing management both by forest management companies and contractors will improve confidence in the business models used and encourage long-term business relationships, adoption of new technology and sustained productivity growth.

This section covers the requirements for compiling and submitting a tender for a logging contract to a forest management company, consultant or farm woodlot owner etc...

This chapter covers the following topics:

Tender Process

Contract Logging Proposal

Contractor Selection

Negotiating the Contract/Contract Terms

Monitoring Contractor Performance

TENDER PROCESS

The usual process for contract tendering is for the forest owner / manager to advertise for Expressions of Interest (EOI) Request for Tenders. Contractors responding to an EOI usually provide general information to the forest company prior to inspection of the tender blocks. Consequent to that, the forest owner / manager will consider the EOI's received and draw up a short list involving a more detailed Request for Proposals (RFP). Sometimes they may just go straight to RFP.

The RFP documents provide the contractor with all the information required on which to submit a Contract Proposal, including more information about the process, timetable, format for conforming proposals and criteria for evaluation of proposals.

Forestry companies are (generally) attempting to move away from looking at the lowest tender (or highest producer) to include a broader spectrum of desirable contractor characteristics. Some forest owners actually specify the weightings they will attach to the various elements they consider when selecting a contractor.

Such an approach is also consistent with forest owner obligations under the Health and Safety at

Work Act as they are also a PCBU and therefore should be focused on all aspects impacting on health and safety, not just price.

Request for Proposals

Information provided by the forest owner / manager in an RFP might include:

- Background to the proposal
- Nature of work (location, species, volume, harvest areas, terrain, piece size, term of contract)
- Scope of work (e.g. harvesting only, road lining, road and landing construction).
- Price point (on-skid, on-truck or delivered prices).
- Product / price mix (e.g. separate log / load prices for each log grade).
- Units of measurement of produce (e.g. JAS m3, m3, tonnes).
- Forest Owner / Manager's expectations of contractors (wood flow, quality, environmental, health and safety).
- Maps providing terrain / engineering details.
- Insurance requirements.

Often the RFP will specify harvest systems expected to be required but well prepared RFP's will also provide the opportunity for contractors to provide alternate proposals if they can be seen to offer advantages.

CONTRACT LOGGING PROPOSAL

The RFP will generally ask for supply of the following detailed information about the contractor and the proposed system to undertake the work.

Business Information

- Introduction to the prime contractor(s). Basically a Curriculum Vitae for Contractor(s) and Key Personnel.
- References (where available).
- Key personnel (including name, qualifications and experience of the person proposed to be in control of the place of work).
- Summary of skills, experience and background, qualifications, established performance relevant to the work being tendered.
- Business structure and company details.
- Possibly a statement as to financial solvency and capability to undertake intended work.
- Professional assistance available, e.g. accounting / legal / consultant.

Logging System Proposed

- Felling / delimbing / processing systems.
- Extraction system(s) (including likely productivity).
- Landing systems (size, shape, layout – if not already in place).
- Value recovery system (processing / log making).

- Stock management.
- Loading (and distribution) system.
- System flexibility and capability to respond to changing demands.

Machinery and Equipment Proposed

- Machinery specifications / age / hours.
- Ancillary equipment available e.g. containers / fuel storage / toilets etc...
- Tower certificates (where relevant).

Health and Safety Management

- A Health and Safety Management system and policies.
- Possibly including details of employee participation in health and safety development:
    - In-house safety meetings and / or safety committees.
    - Safety inspections or audits.
    - Other forms of employee participation.
    - Induction training for new employees.
    - regular monitoring program / audits.
- History of company safety record.
- Communications (procedures, mobile phones, radios, etc...).
- Ongoing monitoring / surveillance program for employees and the workplace.
- Communication with / membership of trade or employers' associations or health and safety organisations demonstrating business improvement and innovation.

Quality / Value Management

- Understanding of and ability to consistently meet customer quality standards.
- Quality control procedures.
- Training of fallers, machine operators and log makers in product quality, log specifications and value recovery.
- Where available / relevant history of quality / value outcomes.

Environmental Management

- Understanding of Resource Management Act 1991 and National Environmental Standards.
- Ability to comply with conditions of harvesting prescription and land use consent (if appropriate).
- Understanding of/involvement with Harvest Plan (haul distance, road & landing location, landing size/shape, tracking required, etc).
- Hazardous Substances (List the hazardous substances used, records, safety data sheets accessible, test certificates current, approved handlers for hazardous substances where required, etc...).
- Cutover clean up specifications / conditions of completion.

- Visual impact and riparian strip protection (if appropriate).
- Fire and forest health requirements.
- Details of public liability insurance held.

Personnel

- Number, experience and skills of crew.
- Qualifications / Records of Learning (appropriate Unit Standards and completion of National Certificate qualifications).
- Training and development programme in place.
- Involvement / experience in assessment of training.
- Communication / involvement with training providers / Regional Training Advisors.

Contract Costings

- Comprehensive job costings prepared.
- Innovations in pricing relating to machinery or labour management.
- System production in differing conditions (piece size, slope, haul distance, log sorts).

Tendered Unit Rate (last but by no means least!)

- Price table of tendered unit rate.
- Contract rate calculation, for the purpose of tendering, is a combination of daily crew costs. and a calculated or estimated rate of production. These issues have been covered in previous chapters.

The preceding is a comprehensive list, but all topics should be considered. Not all will be relevant to every proposal, but provision of additional information will assist the selection process. Also consider this is where you market your services in competition with other contractors. You need to give the forest owner / manager all the reasons why you should be selected ahead of someone else.

Putting a contract proposal together is a complex and time-consuming task and increasingly contractors will need to allow more management time in their costings and improve their management skills and / or seek expert assistance.

CONTRACTOR SELECTION

Forestry companies, as principals, profess to evaluate tenders on the basis not only of the lowest tender price (or highest production volume). The decision as to the successful tenderer should be based on a number of factors which include:

- Adequate consideration of health and safety requirements.
- Skills and training records of the crew.
- The ability to provide quality assurance (based on regular internal quality control procedures).
- Compliance with Approved Codes of Practice and forest company policies and critical rules.
- Adaptability to new ideas / innovation.

- Condition of working equipment and ability to maintain desired production levels.
- Good employment relations (appropriate remuneration systems and employment agreements in place).
- Level of labour turnover.
- Ability to monitor crew performance and make appropriate adjustments.
- Industry image and participation in industry bodies (e.g. FICA / Safetree).

NEGOTIATING THE CONTRACT / CONTRACT TERMS

After the successful tenderer has been selected the forest owner / manager will produce a written contract based on the tender documents and information received and agreed during the tender process. In most cases this will be a standard contract document produced by the forest owner's legal team.

In an ideal contracting world, the parties should meet to discuss the proposed contract and the contractor should have opportunity to discuss and if necessary, amend the terms, before signing the contract. In practice often forest owners are unwilling to undertake anything more than cosmetic changes. However, this should not stop contractors taking their own legal advice and attempting to discuss or amend critical areas.

FICA has prepared a "*Forestry Contracts Best Practice Guide*", we recommend that contractors should familiarise themselves with that document so as to better consider the relevant issues.

All the clauses in the contract should be clearly written and understood by both parties. Commonly key areas covered would include:

- Commencement date and length of contract.
- Possibly rights of renewal.
- Expected volumes.
- Notice periods regarding possible slowdown in work consequent to market conditions.
- Pricing and review processes e.g. ability to negotiate prices to reflect market changes annually, or merely at end of contract term?
- Pricing review processes e.g. fuel / wage indexation and applicable timing periods.
- Contractor performance review criteria.
- Health and safety criteria and review processes.

The process for commencement of the contract should also be discussed and agreed. This may include access requirements, issuing of keys, transport of equipment etc...

MONITORING CONTRACTOR PERFORMANCE

After negotiating and awarding a contract the forest owner / manager will undertake performance monitoring to ensure the conditions of the contract are being met by the contractor. The contractor should expect to undergo regular inspection and monitoring and commonly a formal annual (or sometimes quarterly) review process.

Ideally this also means that the contractor can provide feedback on the principal's performance of the contract!

Case law in occupational safety and health has firmly established that there is a positive duty for principals to monitor contractors' (and subcontractors') performance. This is reinforced by statute

and in particular obligations under the Health and Safety at Work Act.

Where subcontractors are engaged by the contractor, the principal still has a duty to ensure their safety at a level that could be reasonably expected — for example, by the provision of safe access and working conditions on-site (roads, landings, etc).

CHAPTER 8

IMPROVING BUSINESS COMPETITIVENESS

CHAPTER 8

IMPROVING BUSINESS COMPETITIVENESS

INTRODUCTION

Owning and running a successful forest harvesting business is becoming increasingly challenging. In this final chapter of the business management handbook we cover areas of your business not previously covered – the way your business is managed, the way employees are treated, the way problems are solved.

This chapter covers the following topics:

Business Focus
Financial Decisions
Asset Protection
Workplace Culture
Leadership
Becoming an Employer of Choice
Succession Planning

KEY DOCUMENTS

The links below will download the key supporting documents that will assist the user through this chapter.

When you click these links, you will be prompted to save these files on your computer or will be asked where you would like to save these files. It is suggested that you use a working folder to keep all of these files in one place.

Remember to save your work often to make sure that your work is captured in the document. Save your work prior to exiting the document.

These documents consist of manual templates are referenced multiple times throughout the chapter and can be downloaded below.

Leadership Review Guidelines

BUSINESS FOCUS

It is important to focus only on what can be controlled within your business. As discussed in previous chapters, many factors are totally outside a contractor's control, including:

- Cost of equipment, largely driven by currency fluctuations.
- Fuel and oil prices.
- Technology available.
- Forest ownership and forest management policies.

While business success may be influenced by some or all of these factors, and sound management may mitigate their impact, the causes of these factors are outside your control. Don't worry about what you can't control.

Some factors are partially able to be affected by individual contractor businesses, including:

1. Political and regulatory issues (which may be affected by lobbying through the Forest

Industry Contractors' Association (FICA).

2. Formation and influence on industry opinion, by participation in industry groups, activities and conferences:
    a. FISC Working Groups.
    b. FICA Regional Meetings and Training Workshops.
3. Influence on regional labour skills. Affecting recruitment, training attitudes and outcomes in your region is something each contracting business as an employer can influence, but not control:
    a. Profiling forest industry career opportunities to school leavers.
    b. Influencing opinions of employees towards further training and the gaining of qualifications.
4. Uptake of research and technology:
    a. Involvement in Future Forests Research.
    b. Involvement in forestry company and industry projects.
5. Contract rate negotiation and contract management. Obviously, there are two parties to be considered here. Good management will influence both parties to the contract.

Things that can be managed within your business are the day-to-day operational management decisions and practices that drive your results, including:

- Financial decisions.
- Asset protection.
- Culture – which drives safety, service to your customer, quality of log products and environmental standards.
- Leadership.

FINANCIAL DECISIONS

As discussed in *Chapter 3*, financial control is much more than just monthly reporting or the analysis of what is presented monthly by your accountant. Financial control is the proactive management of the drivers behind the monthly financial results.

These drivers of profitability must be controlled in both cost and revenue areas, as indicated in earlier chapters of this handbook:

- Understanding your costings (*Chapter 1*)
- Productivity (*Chapter 2*)
- Effective operational planning and use of resources (*Chapter 2*)
- Financing costs (*Chapter 4*)
- Plant and equipment replacement (*Chapter 4*)
- Labour related costs (*Chapter 5*)
- H&S (*Chapter 6*)

ASSET PROTECTION

Most of us know the importance of protecting our assets from the threat of damage, fires or theft and we do this through insurances. But what about protection from other (more indirect) threats,

vulnerabilities and weaknesses of your business? Too often this is not even considered, leaving the possibility that one adverse event or moment of inattention can lead to your years of hard work and accumulated assets going down the toilet.

This is a complex area where everyone's circumstances and objectives are different so obtaining detailed advice relevant to your particular circumstances is important. Below we highlight some of the issues to consider as a starting point for you, using the following *What, Why* and *How* for our asset protection.

WHAT is asset protection?

It's all about insulating assets from potential creditor claims and reducing exposure to the risks posed by threats, vulnerabilities and weaknesses in your business. While some of these you can (partially) control, others such as market conditions or accidents arising from an employee's moment of inattention can quickly come out of left field with huge potential impacts.

WHY asset protection?

There are a number of reasons for protecting your assets:

Plan for the future to ensure control of your assets in the long term

Retain what you have worked so hard to obtain

Operational sustainability, i.e. the continuation of operations in event of legal battle or prosecution

Theft

Employer obligations / Person Conducting Business or Undertaking PCBU (under HSWA 2015)

Control / countermeasure to reduce risk and ultimately retain control

The Family and their future

In summary you want to protect for yourself and your family what you have worked hard for years to create.

HOW to achieve asset protection?

Firstly, get good professional advice from an accountant and lawyer experienced in these areas. Due to changes in both legislation and also at times case law what may have been appropriate in the past may not now be adequate so important to get up-to-date advice.

Asset protection is achieved through a range of options, often working in conjunction with each other in an appropriate overall structure. Some of the basic building blocks will include:

Insurance

In the broader asset protection perspective this goes beyond the obvious asset insurance, equally importantly other "soft" insurances should be included i.e. public liability insurance to cover damage to 3rd parties that may arise from your operations, also officers liability insurance to protect owners against possible claims in areas such as employment / health liabilities.

Note that while these later policies can provide significant comfort around meeting legal and other consequential costs arising from such issues, including even reparations, under law they cannot cover fines that might be imposed. As per *Chapter 6* potential fines can be very large and sufficient to render a business insolvent.

And in some cases, those potential liabilities flow through to directors and even shareholders with potential to result in bankruptcy, refer *Trusts* below.

Company

Most businesses trade through a company for commercial convenience but do not overlook the fact that a company is called "Limited" for a reason. This means that as a starting point claims against the company are limited to the assets available to the company i.e. not personal assets.

It is for this reason that many financiers and often trade creditors will demand that directors and at times even shareholders sign personal guarantees before they will provide either finance or goods and services. Ideally any owner would sign as few personal guarantees as possible but from a practical perspective often this is unavoidable.

Trusts

As you can see from the preceding, while insurance and companies are useful it is hard to get away from owners having personal liability that could result in their own personal assets coming under attack. The next layer of protection to consider to reduce this risk is using a trust.

A trust is a separate legal entity designed to hold assets on behalf of beneficiaries i.e. these assets are not owned by any individual. Commonly those beneficiaries are the business owners and family members. If the trust rather than a contractor personally owns assets this increases the chances of protecting those assets from claims against the business.

The trust assets are administered by trustees. Those trustees will often include the "settlor's" i.e. people who set up the trust, commonly the contractor and spouse and sometimes a further trustee such as close friend or professional adviser (accountant / lawyer). Trustees must act on behalf of the beneficiaries rather than in their own personal interests.

Best practice is to have 2 trusts. One trust being business related, owning company shares and possibly even directly major fixed assets (which are then leased back to the trading company) and another separately owning the personal assets e.g. the house.

The reason for this is that if the house is owned personally it is liable to any attack on those personal guarantees or liabilities noted previously. If the house is owned in a trust which also owns business assets chances are high that "business" trust will have provided guarantees to financiers. Those guarantees will potentially expose all the assets of the trust, not just the assets against which the borrowing will have been undertaken.

Therefore, having the house and other major personal assets in a completely separate trust which has not provided any business related guarantees can be very valuable for protecting those assets in the event that adverse circumstances occur in the business or business trust.

To be effective and rely on the potential benefits created by a trust it is important that formal trust administration should be maintained to ensure continued asset protection (i.e. do not just set up a trust and forget about it, this makes it easier to be treated as a sham trust or verturned).

While the major benefit of a trust is asset protection there can often be tax saving advantages available, depending on particular circumstances. Those opportunities should be discussed with your accountant.

Wills

A will provides for the disposition of your personal assets upon death. If no will is available then this is called intestacy and creates considerable potential for family disputes. We recommend that wills be updated regularly as over time family circumstances and your intentions can change.

While a will should express your personal intentions you cannot just write it out yourself, a legally valid will can only be created with input and ultimately sign off from a lawyer.

One important "asset" that is often overlooked is the power you may have to appoint a trustee in your will to replace yourself upon death (assuming you are a trustee). This can assist in avoiding uncertainty as to future outcomes and disposition of the financial assets held by the trust.

Memorandum of Wishes

Wills deal with personally owned assets, if you are using trusts then chances are the majority of your assets will be owned by a trust. As a trust is a separate legal entity it continues in existence, even if anything happens to you personally. The trustees will continue to hold the assets on behalf of the remaining beneficiaries but there may be a lack of clarity about what your intentions are as to the disposition of those assets

As noted above appointing a replacement trustee under a will may assist. A memorandum (sometimes called letter) of wishes can be of considerable further assistance to remaining trustees and advises trustees of your intentions regarding the ultimate allocation of assets amongst beneficiaries. This can be very helpful in avoiding family disputes.

A memorandum of wishes can be written by yourself personally without legal input but should be signed and dated. And as with wills updated over time as circumstances change. While memorandums are not strictly binding legal documents they are regarded as strong evidence as to intentions and it is generally considered there would need to be very major change in circumstances to justify any trustees ignoring such memorandum.

Relationship Property Agreements

The starting point under the Relationship Property Act is that all property be split 50 / 50. There can at times be a considerable disparity in assets brought into relationship. It is up to the parties to determine how to treat that disparity, but if ignored there is a high likelihood that over time what might have been originally "separate" property becomes relationship property. That may, or may not, have been the intention of the parties.

If this is an issue the only effective legal way to address this is through means of a formal relationship property agreement. This is where both parties take independent legal advice and sign an agreement defining property rights. As with wills, to be effective this must be signed off with legal input, informal personal agreements will have no legal standing and cannot be relied upon.

Enduring Powers of Attorney

A Power of Attorney appoints someone to act legally on your behalf. These can be created if for example you were going overseas but had issues requiring legal action in your absence.

An Enduring Power of Attorney may relate to either property or to personal care and welfare and is designed to appoint someone to act on your behalf if you are incapacitated e.g. through accident or illness. Effectively appointing someone to act as "trustee" in your interests if you are unable to do so.

As this covers important legal rights once again this can only be prepared with the input of a lawyer. Often, they are prepared in conjunction with a will, as they address many of the same issues.

Any forestry contractor knows that it's not easy to make money in the business of logging and its often even harder to hang on to it. Asset protection planning is to ensure that what assets you have been able to accumulate are protected in the best and most effective way possible.

WORKPLACE CULTURE

Culture in the workplace is less tangible and harder to define than business processes. However, the development, through sound management practices, of the organisational culture that suits you the employer and your employees will determine the success or otherwise of your process-driven business systems.

The culture of your organisation is the sum of all the behaviours that are normally and naturally practised in the organisation. So, it is defined by what is done, not what is said or written down. This is accurately reflected by what happens when the "boss" is not around. That includes whether (or not) anyone adheres to the documented systems and procedures set up in the business.

A sound culture permeates an organisation, driving the desirable behaviours and enabling people to "know how things are done around here" without the need for manuals and procedures. In fact, the management systems should just reflect what is in fact, done.

An important component of business management in logging is developing a strong health and safety culture – motivated workers with a positive attitude to managing safety. *Chapter 5* and *Chapter 6* have indicated some useful areas to focus on.

LEADERSHIP

Part of developing the right culture is an intangible – leadership. While leadership is a complex phenomenon to define (and it is not within the scope of this handbook to do so), it is not so deeply mysterious that it cannot be better understood or further developed in harvesting business managers.

A lot of businesses have talented and well-trained management, but not much leadership. Among harvesting contractors, there are a lot of talented leaders, but they are often not practicing good management. Many readers will no doubt have experienced the powerful increase in capacity and performance that takes place when we are part of a team with great leadership.

New Zealand is currently experiencing a challenging demographic period with the retirement of the so-called "Baby Boom" generation, those born in the period 1946 to 1965, and the war for talent becoming more intense. The calibre of leadership in competing businesses and the way they value new and existing employees will play a big role in attracting and retaining these workers in the logging industry.

With today's workforce it is not enough to just pay attention to tasks such as production, cost control and financial management. The successful harvesting contractor needs to pay attention to

people. People at every level of your business are looking for leadership and if you can't or won't provide it, employees will go looking for it elsewhere.

There is a strong link between how a team performs and the quality and style of its leadership. Your personal leadership style builds credibility and lifts team performance. Good leadership is rewarded with inspired people making an extraordinary effort. At best, poor leadership means your team is operating at less than 100%. At worst, poor leadership means demotivated workers with "one foot out the door."

Good leadership increases commitment and enhances retention of employees. Employees no longer equate position, title ("Boss" or "Manager"), or technical knowledge or practical skills with leadership. They follow people they believe in and those with qualities they admire, rather than those they report to. Relying on formal authority and technical knowledge is not enough to secure the commitment of employees.

Qualities of good leadership that have been noted across all ages, positions and organisations include vision, communication skills, collaborative style and concern about staff. A possible checklist of outcomes of good leadership can be found *here*. Managers across all organisations are increasingly being asked to take the role of teacher (or "mentor") with individual employees expecting skilled coaching, one-on-one support, and role modelling.

It is vital for harvesting contractors and crew managers develop their own leadership style and ability. Effective and authentic leadership development is a necessity in today's competitive business environment.

BECOMING AN EMPLOYER OF CHOICE

The 'human capital' is the most valuable asset of any company. As such, recruitment, retention and development of capable and talented staff are fundamental to any business success. This is especially true given the context of the growing shortage of skills in New Zealand companies and many New Zealanders moving overseas to seek better employment opportunities.

Corporate Social Responsibility (CSR) of a company (occupational health and safety, environmental performance, ethical issues, and business / community relationships) is one of many factors skilled workers are starting to take into consideration before they accept a job offer. It has been proven empirically that most people like to work for an organisation with good social and environmental policies.

In a recent survey of "100 Best Companies to Work For", the focus was on three characteristics of best practice: people development, leadership and corporate responsibility. It was suggested that, in many organisations, people development and CSR attracted many top employees to their present position at work.

Research in New Zealand has examined whether there is a relationship between CSR and staff retention in New Zealand companies. Employees' assessment of their workplace is affected not only by remuneration, but also by working conditions, health and safety policies, public image and socially responsible behaviour of the employer.

Employees who believe they work in a socially responsible environment are six times more likely to be loyal than those workers who believe that their organisation is not socially responsible and behaves in an unethical manner.

Your future as a harvesting contractor will be determined by the calibre of people you employ, their skills and experiences and your ability to translate these management concepts into

practice and make the workplace a safe and enjoyable environment to be in.

Some final advice about meeting the challenges for the future of your business:

- Raise your business profile, both internally and externally.
- Develop and retain a skilled workforce.
- Enhance the security of your contract.
- Plan for future investment in business systems and technology .

SUCCESSION PLANNING

All business owners should have a succession plan in place. Whether you plan on exiting in three years or 30 years, it's important now. It's not just about extracting maximum value from your business to provide for your future. Succession planning allows you to transition your business to new ownership in a managed and systematic way; reducing stress while achieving a greater outcome. If you were hit by a bus tomorrow, how seamless and pain free would the immediate transition be - both for your business and for those who rely on it?

A carefully considered exit strategy reflects the hard work and capital you have invested in your business. Will you be able to sell your business at a price that reflects the time and effort that you have invested? You need to plan for succession with the same attention and thought that you put into your business operation and financial planning and it requires regular reflection and ongoing development.

Succession planning is about clarifying what you want for the future and defining the steps required to turn that vision into a reality, while taking into consideration business, personal and family expectations. Whether you want to sell, pass on to a family member or simply take a more passive role in the operation, taking time to plan now will benefit all involved.

Many business owners don't recognise the importance of succession planning until it's too late, resulting in a stressful journey and significantly reduced sales outcome. Remember, you have not worked hard for all of those years just to give it away.

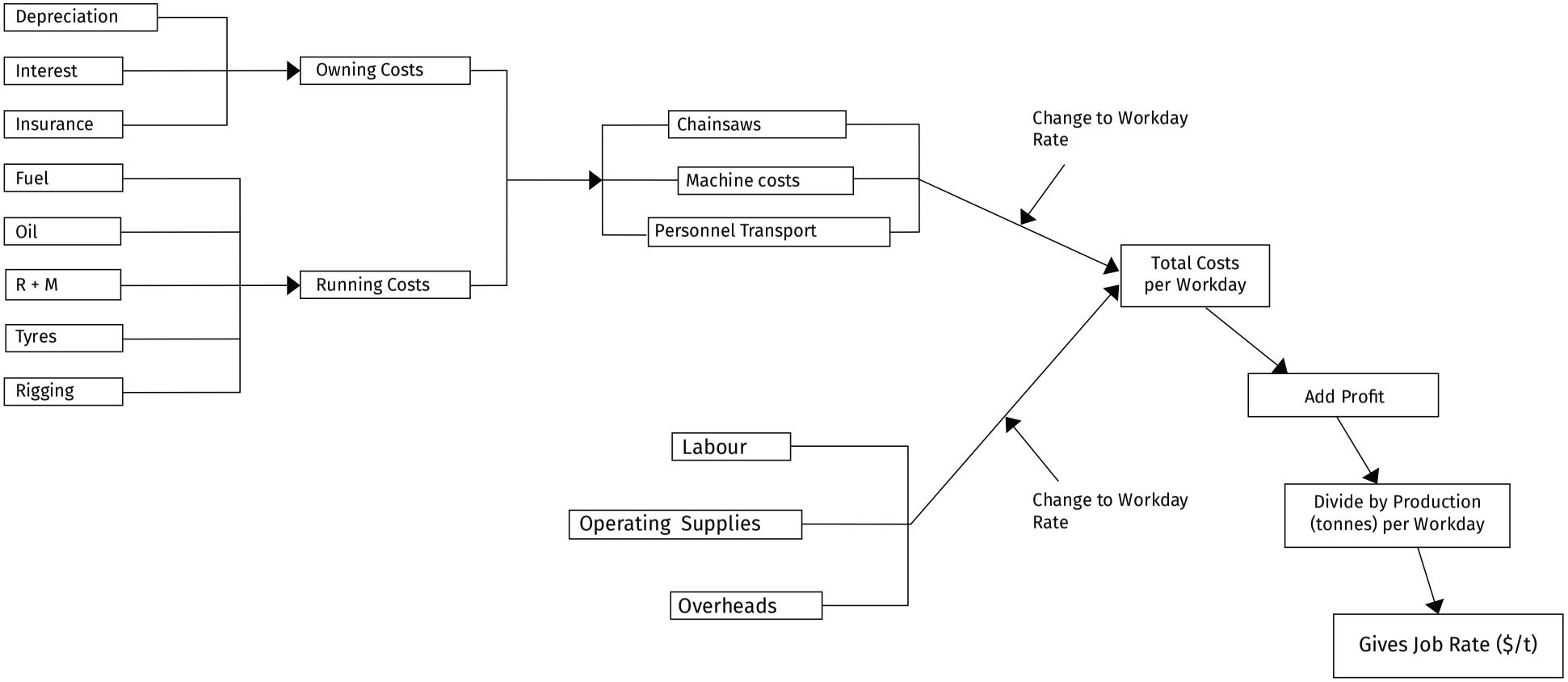
Succession planning is a process, not an event... the earlier you start planning the greater the outcome for everyone involved.

APPENDICES

1. **Job Costing Summary**
2. **People Management**
3. **Leadership Review Guidelines**
4. **Stats Links**

APPENDIX 1

JOB COSTING SUMMARY



Appendix 5 : Job Costing Summary

APPENDIX 2

PEOPLE MANAGEMENT

2.1. Pre-employment check

2.2. Applicant Assessment Form

2.3. Pre-employment Agreement

2.4. Employee Performance Review

2.5. Employment Application Form

2.6. Health Monitoring Form

2.7. New Employee Induction Checklist

2.8. Interview Guide Form

ACC 6213

Pre-employment check - request for ACC claims history

PREVENTION. CARE. RECOVERY.
Te Kaporeihana Āwhina Hunga Whara

PleaseRead: Pleasecompletethis form and then email it to preemploymentchecks@acc.co.nz. Please provide a valid proof of identification: These include but are not limited to; Driver's Licence, Passport, 18+ Card, Birth Certificate, or Statutory Declaration signed by the Police or JP.

Employersandrecruitmentagencies: unlessthejobapplicant gives specific permission, the claims history provided will not include information about any:

- mental injury as a consequence of physical injury claims
- declined claims including accredited employer claims
- treatment injury claims
- claims occurring more than 10 years ago
- sensitive claims
- wilfully self-inflicted claims
- accidental death claim dependants

PART A: IDENTIFYING DETAILS

1. JOB APPLICANT'S DETAILS	PLEASE COMPLETE ALL SECTIONS
First Name:	Middle Name:
Surname:	Also known as (e.g Maiden name):
Date of Birth:	Phone Number/s:
Ethnicity:	Male ☐ Female ☐
Postal address:	Suburb :
Town/City:	Postal Code :
Previous Address:	Type of work/Industry:

2. EMPLOYER OR RECRUITMENT AGENCY DETAILS	FOR ACC CLAIMS HISTORY RESULTS TO BE SENT TO
Organisation Name:	Contact Person's Name:
Contact Phone Number:	Contact Email Address:

PART B: CONSENT FOR ACC TO RELEASE INFORMATION

3. JOB APPLICANT'S CONSENT AND SIGNATURE

I authorise ACC to release my ACC claims history to the employer or recruitment agency named in Part A:2, and understand that I will be sent a copy to the mailing address marked in Part A:1.

I understand that this information will only be used to decide whether I can carry out the job safely.

I understand I have the right:

- to see and correct this information under the Privacy Act 1993
- that the employer or recruitment agency will use this information responsibly, and comply with the Privacy Act 1993, Health Information Privacy Code 1994 and the Human Rights Act 1993
- that the employer or recruitment agency will destroy the information once the job application process is complete.

Job applicant's signature:	Date:

Appendix 2.1 : Pre-employment check

Applicant Assessment Form

Name:

Telephone Number:

E-mail Address:

Position Information

Position Applied For:

Interviewer:

Operation:

Interview Date / Time:

Ratings

On a scale of 1-5 (1=poor, 5=excellent, and n/a=not applicable), rate the applicant on the following skills:

Job Skills and Experience	**1**	**2**	**3**	**4**	**5**	**n/a**
Experience relevant to position	○	○	○	○	○	○
Understands role requirements	○	○	○	○	○	○
Career goals fit position	○	○	○	○	○	○
Practical Skills / Can use appropriate tools	○	○	○	○	○	○
Understands industry trends	○	○	○	○	○	○
					Average rating	

Team Building Skills	**1**	**2**	**3**	**4**	**5**	**n/a**
Encourages team building	○	○	○	○	○	○
Manages conflict	○	○	○	○	○	○
Sets clear goals and expectations	○	○	○	○	○	○
Communication skills	○	○	○	○	○	○
Demonstrates leadership qualities	○	○	○	○	○	○
					Average rating	

Personal / Professional Attributes	**1**	**2**	**3**	**4**	**5**	**n/a**
Motivation and enthusiasm	○	○	○	○	○	○
Asks relevant questions	○	○	○	○	○	○
Understands Company goals	○	○	○	○	○	○
Effective time management	○	○	○	○	○	○
Interested in continued development	○	○	○	○	○	○
					Average rating	

Appendix 2.2 : Applicant Assessment Form

PRE-EMPLOYMENT AGREEMENT

BETWEEN _____ (hereinafter called the employer)

AND _____ (hereinafter called the prospective employee)

The prospective employee has applied for a position with the employer. The prospective employee advises that he is in good health in all respects and has no known history of physical problems that might impair his ability to undertake the proposed work for the employer.

The prospective employee agrees to undertake sufficient health checks as required by the employer, covering both physical health and also drug and alcohol testing. Such testing should be at the expense of the employer.

The prospective employee hereby consents to the medical practitioner undertaking such testing to provide results to the prospective employer and also authorises the employer, where the employer is so required, to provide a summary of such results testing to forest owners who use the employer's services.

The prospective employee hereby authorises the employer to obtain information directly from ACC as to their accident history if deemed necessary by the employer.

The prospective employee will provide the employer, if requested and considered necessary for the position, with such details of his driving licence as may be required, including authorising the prospective employer to obtain information directly from the LTSA if necessary.

If the prospective employee is accepted for employment he agrees that this employment is subject to a trial period of 90 days pursuant to section 67A and B of the Employment Relations Act 2000. The trial period shall commence on the date of the employee commences duties.

The prospective employee acknowledges that he does not become an employee of the employer until he has considered, signed and returned the Employment Agreement provided by the employer.

Signed by: _____ (prospective employer)

Date _____

Signed by: _____ (prospective employee)

Date _____

Appendix 2.3 : Pre-employment Agreement

Employee Information

Name Of Employee: Name of Employer:

Date: Review Period: **to**

Review Guidelines

Complete this review, using the following scale:

NA = *Not Applicable*
1 = *Unsatisfactory*
2 = *Marginal*
3 = *Meets Requirements*
4 = *Exceeds Requirements*
5 = *Exceptional*

Evaluation

	(5) = Exceptional	(4) = Exceeds Requirements	(3) = Meets Requirements	(2) = Marginal	(1) = Unsatisfactory
Demonstrates Required Job Skills And Knowledge	☐	☐	☐	☐	☐
Has The Ability To Learn And Use New Skills	☐	☐	☐	☐	☐
Uses Resources Available In An Effective Manner	☐	☐	☐	☐	☐
Responds Effectively To Assigned Responsibilities	☐	☐	☐	☐	☐
Meets Attendance Requirements	☐	☐	☐	☐	☐
Listens To Direction From Management	☐	☐	☐	☐	☐
Takes Responsibility For Actions	☐	☐	☐	☐	☐
Honours Commitments	☐	☐	☐	☐	☐
Demonstrates Problem Solving Skills	☐	☐	☐	☐	☐
Offers Constructive Suggestions For Improvement	☐	☐	☐	☐	☐
Generates Creative Ideas And Solutions	☐	☐	☐	☐	☐
Meets Challenges Head On	☐	☐	☐	☐	☐
Demonstrates Innovative Thinking	☐	☐	☐	☐	☐

Areas For Improvement/Training/Development:

Employee Signature:

Employer Signature:

Appendix 2.4 : Employee Performance Review

Employment Application Form

Date _____

Full Name _____ Date of Birth _____

Address _____

_____

Telephone _____

Current Driving Licence _____

Job You are Applying for _____

How Many Years Experience? _____ I can start (date): _____

What Other Roles are You Qualified For? _____

In Case of Emergency, Please Notify: _____

Relationship: _____ Address: _____

Work Phone: _____ Home Phone _____

Highest Educational Level: _____

List any training that may be relevant to this position: _____

_____

_____

_____

Employment History (List Your Present or Last Employer First)

1 Employer _____ Address _____

Job Title _____ Supervisor _____

Duties (be specific) _____

_____

_____

Reason for Leaving _____

Employed: From _____ to _____

May We Contact? _____

2 Employer _____ Address _____
Job Title _____ Supervisor _____
Duties (be specific) _____
_____
_____
Reason for Leaving _____
Employed: From _____ to _____
May We Contact? _____

3 Employer _____ Address _____
Job Title _____ Supervisor _____
Duties (be specific) _____
_____
_____
Reason for Leaving _____
Employed: From _____ to _____
May We Contact? _____

Please List Three References not Related to You

Name	Address	Business	Years Known

If you are employed do you agree to :

- Report all injuries that you receive on the job to your employer? _____
- Abide by all the safety rules of this organisation? _____

Certificate of Applicant: "I certify that all information in this Application is complete and correct to the best of my knowledge."

Signature of Applicant _____

Date Signed _____

For Office Use

Appendix 2.5 : Employment Application Form

Health Monitoring Form

Date _____

Name _____

Have You had a Complete Physical in the Last Two Years? _____

If so, When? _____ Reason? _____

Are you Willing to Take a Physical Examination for this Job? _____

Please Check any of the Following Conditions You Suffer from or Have Had:

	Yes or No?		Yes or No?
Heart Problems		Colour Blindness	
High Blood Pressure		Reaction to Serum or Drug	
Frequent Headaches		Dizziness or Fainting Spells	
Hay Fever/Asthma		Convulsions or Epilepsy	
Skin Trouble		Arthritis or Rheumatism	
Allergies		Drinking Problem or Drug Addiction	
Head Injury		Severe Reaction to Bee Sting or Nettle	
Eye Injury		Repetitive Strain Injuries	
Earache, Deafness		Hepatitis	
Athletic Injury		HIV Virus	
Diabetes			
Hernia			

If You Have Answered 'Yes' to any of the Above, Please Give Details.

Have you had, or do you have, any injuries that might affect your ability to do this job?
If so, Please Detail.

Do you have any re-occurring injury?
If so, Please Detail.

Do you have any ailments or diseases which may reduce your ability or prevent you from doing this job?
If so , Please Detail.

Do You Smoke? _____ Do You Wear Corrective Lenses _____

Certificate of applicant: "I certify that all information in this application is complete and correct to the best of my knowledge. I understand that if any false information is given, or any material fact suppressed, I may not be employed, or if I am employed, I may be dismissed."

Signature of Applicant _____
Date

Appendix 2.6 : Health Monitoring Form

New Employee Induction Checklist Date _____

Employee Name _____

Position _____

Reporting to: _____

Starting Salary _____

Starting Date

Tick		Proof of Action?
	Protective Equipment Issued, Purpose and Care Described.	
	Health and Safety Plan discussed, incl Critical Rules	
	Qualifications sighted	
	Hazard ID and Training/Assessment Session Carried Out	
	Assigned to a Supervisor (in Writing) if Applicable	
	Company Health and Safety Policy covered	
	Explain use of Company Vehicles	
	Completed IR 330 form	
	Wage Payment Procedures / bank account details	
	Date for Training Plan development set	
	Date set for next Company Safety Meeting	
	Date for first Performance Review set?	

Employee Statement

"I certify that all the above information was covered and that I understand all the items pertaining to my employment, safety, and conduct."

Employee Signature _____

Induction given by: _____

Appendix 2.7 : New Employee Induction Checklist

INTERVIEW GUIDE
This form is a guide for the Employer. You may add or delete questions as appropriate.
1. Describe the kind of work you did in your last job?
2. May I contact your last employer for references?
3. Has any former employer refused to give you a reference?
4. What experience have you had in this kind of role?
5. What did you like best in your last job?
6. What did you dislike about your last job?
7. Why did you / why are you leaving your last / current job?
8. Why do you like the kind of work you do?
9. Do you own your own home?
10. What are your goals for the future?
11. Are you satisfied with your progress in your chosen field?
12. Do you have any problems that may hinder you in doing this job?
13. Have you ever received compensation for injuries? If yes, please describe

14. What is the general state of your health at this time?
15. Have you continued your education in any way since leaving school? If yes, how.
16. Have you had any training in connection with previous jobs? If yes, what.
17. Do you have plans to continue training in the future? If yes, give details.
18. Do you belong to any organisations or clubs? If yes, give details.
19. What do you consider to be your strong points?
20. How do you manage your spare time?
21. What do you expect to gain from working with our company?
22. Do you have any questions?

Appendix 2.8 : Interview Guide Form

APPENDIX 3

LEADERSHIP REVIEW GUIDELINES

Review Guidelines

Complete this review, using the following scale:

NA = *Not Applicable*
1 = *Unsatisfactory*
2 = *Marginal*
3 = *Meets Requirements*
4 = *Exceeds Requirements*
5 = *Exceptional*

Evaluation

	(5) = Exceptional	(4) = Exceeds Requirements	(3) = Meets Requirements	(2) = Marginal	(1) = Unsatisfactory
Do you attract motivated career-focussed individuals?	☐	☐	☐	☐	☐
Have you set the expected standards?	☐	☐	☐	☐	☐
Do you demonstrate them in your own behaviour?	☐	☐	☐	☐	☐
Do your staff understand what is expected of them?	☐	☐	☐	☐	☐
Do you provide the best work environment you can?	☐	☐	☐	☐	☐
Are the right "tools" available to people?	☐	☐	☐	☐	☐
Do your staff see forestry as a long term career?	☐	☐	☐	☐	☐
Do your staff want to do the "right thing"?	☐	☐	☐	☐	☐
Are your staff in control of their environment?	☐	☐	☐	☐	☐
Do your staff know the consequences of non-compliance with business processes?	☐	☐	☐	☐	☐

Areas For Improvement/Training/Development:

Employer Signature:

Appendix 3 : Leadership Review Guidelines

APPENDIX 4

USEFUL LINKS

- Energy Price Indexes – including bulk diesel and petrol costs.

  https://www.stats.govt.nz/information-releases/business-price-indexes-march-2020-quarter

  - **Business price indexes -** March 2020 quarter - producers price index
  - **Producers price index -** Selected commodities – index numbers and percentage changes(1)

  Suggest AA more useable. Search "Petrolwatch" from the link below.

  https://www.aa.co.nz/cars/motoring-blog/SearchBlog

- Labour Cost Index – these costs consist of base salary and ordinary-time wage rates, overtime wage rates, and non-wage labour-related costs. They are available both as a national average, also per industry, including forestry.

  Suggest searching 'Labour Market Statistics and year you want –

  https://www.stats.govt.nz/information-releases/labour-market-statistics-march-2020-quarter

  Then for Forestry specific – **Salary and wage rates by industry and by occupation**

  https://www.stats.govt.nz/information-releases/business-price-indexes-march-2020-quarter

- Producer Price Index – reflecting the cost of industrial inputs, such as machinery. (best to search BPI and year you want.)

  https://www.stats.govt.nz/information-releases/business-price-indexes-march-2020-quarter

  - **Business price indexes -** March 2020 quarter - capital goods price index

- Consumers Price Index (CPI) – while not specifically related to forestry, CPI can be a useful benchmark for considering general price movements in overhead//transport areas of costings.

  https://www.stats.govt.nz/indicators/consumers-price-index-cpi