

# Small-scale forestry safety guidelines

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## Introduction

This is not a comprehensive guide to health and safety for small-scale forestry. It is an outline introduction to some of the requirements and responsibilities of the current health and safety legislation as it applies to small-scale forestry. A new Act covering health and safety at work will come into effect in April 2016. Until then, the current Health and Safety in Employment Act applies.

Small-scale forestry is a term frequently used throughout these guidelines. It is used to cover forestry activities which are not part of the larger corporate forestry companies but there is no exact definition. In general, small-scale forestry is for all forestry activities for those who own, manage or have an interest in woodlots or small forestry blocks sometimes on a farm but often just as separate forest blocks. Usually these woodlots are less than 100 hectares in area, but could be as large as 1,000 hectares.

If there is any commercial activity on or in any of these woodlots they are a workplace and covered by the legislation with regard to health and safety. Therefore, if any contractor or paid employee is used at any time on the forestry block, it is a workplace. If you are cutting wood for some financial return it is also a workplace. If you are thinning trees with the intention that the remaining trees are to be sold, it is also a workplace.





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For more precise definitions of what is or is not a workplace you will need to get detailed advice from WorkSafe. However, for simplicity, it is best to assume that the forestry block is a workplace and that the Health and Safety in Employment Act applies now and with the new Act applying after April 2016. After this date some of the definitions will change but the basics stay the same. After the new health and safety law comes into effect we intend to supply revised information about how it applies. But, as mentioned earlier, until then the current Health and Safety in Employment Act applies.

While reading through these guidelines please remember that an owner or manager of a woodlot has responsibilities for health and safety which cannot be delegated to others. In other words the owner or manager cannot just contract someone else, or some other company, to carry out work on a woodlot and assume that the contractor is now solely responsible for all legal aspects of health and safety. You can delegate the authority to do the work, but you cannot delegate the overall responsibility required by the legislation. This process can be difficult to manage if you are a forest owner who, for example, has never used a contractor for forestry work.

The majority of risks to safety with forestry are generally during the harvesting process. As a result much of the following advice is about harvesting. However, all other forestry activities such as planting, thinning and pruning are potentially dangerous and safety should be at the forefront of your planning at all stages of forestry work.





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The responsibility for making sure health and safety is an integral part of the work sits with you, even if you do it yourself or use a contractor. If you do not take your health and safety responsibilities seriously you could be prosecuted, fined \$500,000 and even receive a prison sentence of up to two years under the Health and Safety in Employment Act. As a responsible land or forest owner you need to make sure health and safety is in place and meets the standard required by the Health and Safety in Employment Act, regulations, codes of practice and forestry best practice guidelines.

This guidance covers what you need to be aware of and consider in terms of health and safety before starting or contracting out any work. It is not intended to be a detailed 'how to' guide.

Its aim is to help you with planning, determining what to have in place for a health and safety system and managing contractors to make sure any work is completed safely. The biggest health and safety risks occur during harvesting so much of the advice is around this activity.

The bottom line for health and safety in small-scale forestry is if you do not have the experience to complete the work safely then –

- Get good advice from experts, such as the Forest Industry Contractor's Association
- Contract it out to someone who is experienced in the work and has a good reputation for health and safety.

Getting health and safety in place before you start your harvest may save lives – maybe even your life.





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If you intend to sell the wood harvested then you are running a business venture and you have health and safety responsibilities. You will be considered a principal in terms of the Health and Safety in Employment Act. You may even be considered an employer. Even if you think you are just an investor, you may have legal duties as a principal in terms of the Act. This means you are responsible for the health and safety of anyone involved in your harvesting venture.

As a principal you must do everything in your power to make sure no one is harmed at your work site or while doing work on your behalf. This includes you, any employees, and anyone you hire or contract or who volunteers to complete the work on your behalf. Principals or employers are responsible for the health and safety of employees, contractors, students, family members or volunteers who are working in any of their operations.

When the new law comes into effect in April 2016 the term 'person conducting a business or enterprise' will be used and the acronym PCBU will appear. To a great extent this term will replace 'principal' although the basic concept of responsibility and authority does not change. You may find that the term PCBU will be referred to before the new law comes into effect but until then 'principal' is applicable.





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As a principal you are responsible for taking all practicable steps to make sure no one you employ, or is employed by a contractor that you hire, is harmed while doing work for you. You must engage competent contractors. One way you can reduce the risk is to hire harvesting contractors who are members of the Forest Industry Contractors' Association.

You will still need to decide if a contractor is competent with regard to health and safety. Some ways to assess this is to make sure the contractor –

- Provides a copy of the contractor's health and safety management system
- Has a good health and safety track record
- Explains exactly how the work will be carried out safely
- Trains and supervises their staff in health and safety practices
- Maintains machinery, personal protective gear and safety equipment in good order
- Has the required emergency procedures in place
- Has reporting processes for hazards, incidents, accident and safety concerns
- Ensures their employees' and contractors' skills are up to date
- Inducts and trains new staff, including all paid employees and contractors as well as volunteers and unpaid workers.





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Once a contractor is engaged, the principal must –

- Provide the contractor with information about hazards so that the health and safety risks are controlled
- Periodically audit the effectiveness of the contractor's health and safety system, using an experienced safety expert if you are unsure
- Ensure contract agreements clearly incorporate and define responsibilities and duties under the Health and Safety in Employment Act, the Health and Safety in Employment Regulations and the Hazardous Substances and New Organisms Act.

### Who is responsible for what?

You need to be clear on the terms of your contract if you use a contractor. Make sure you have asked and had satisfactory answers to the following questions –

- Who will be doing what?
- Who is responsible such as, who will handle emergencies, health and safety documentation or first aid?
- Who will maintain the accident register?
- What vehicles are going to be used?
- What equipment will be used?
- What happens in bad weather?
- Who will be in touch with WorkSafe NZ?





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As noted earlier, the majority of information supplied here about safety in small-scale forestry is linked with harvesting. Harvesting is the most risky aspect of work in forestry and over the next few years a significant number of small-scale forests will be ready to harvest.

Well planned operations are usually safer because many of the hazards and risks have been worked through and safer ways of doing the work are identified before the job starts. Consider the following items in which are some of what should be in your project plan before you start harvesting.

- Plan well ahead to allow access for equipment and logging trucks as it can take a long time
- The landowner has responsibilities if a road needs to be built to access the harvesting site, so contact the local authority to find out about requirements and consents
- Check about other resource consents from your local regional council or local authority
- Harvesting near power lines must be carried out by experts and the local electricity lines company must be contacted for consent to work near the lines because no work can begin until the power lines company gives consent
- Safety measures must be in place to prevent falls from height
- Make sure the plans keep people and operating machinery separate
- WorkSafe must be notified at least 24 hours before any trees are felled for commercial purposes.





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### Planning access

Access to a woodlot for harvesting a small-scale forest can require a lot of work unless it is adjacent to a road. As part of the early planning process you should –

- Consult an expert and refer to the *New Zealand Forest Engineering Manual*, available from the NZ Forest Owners Association, if you intend to build roads, bridges, fuel storage areas, loading bays, log stacks or making fire breaks
- Contact NZTA for the requirements for temporary traffic management, and use the NZTA's *Code of practice for temporary traffic management*.







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### Doing the work yourself

Doing the work yourself is a large commitment and involves you being a professional forester. The strong recommendation is that, unless you are an experienced, professional harvester, you do not carry out harvesting operations yourself. You need to consider whether you have all the skills to be able to do this safely.

Remember, if you do all the work yourself, you are responsible for a significant workload. This involves planning the work properly, meeting the same health and safety requirements as a professional forestry company and having the same standards for access, health and safety training, and incident and injury reporting.

You may decide to engage a professional adviser, but still do most of the work yourself. This will still require you to become properly trained in the operations you wish to carry out. You must follow industry best practice in terms of health and safety, use the correct personal protective equipment and clothing, and keep equipment well maintained. You also need to think about your own welfare, levels of tiredness and not operate equipment if impaired by drugs or alcohol.

Working alone can be especially dangerous. It is good practice to establish a call-in process for when you are working alone. It is important to have fixed call-in times and a procedure to follow if you do not call in and communication cannot be established.





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Anyone working in a forest –

- Must be competent or supervised and not impaired by drugs or alcohol
- Must always be safety-conscious, work responsibly, not cause harm to others and make themselves known to others working in the area
- If aged under 15 must to be closely supervised and must not operate machinery.

More information on industry best practice can be found in the further information section on this website.

### Run the operation but hire the help

You might decide to get some help but still run the harvesting operation. In that case you are still a principal and are responsible for the health and safety of any contractors who work for you. You will have to make sure the contractors are competent and can do the work safely.

You may not want or need to contract out the entire operation, just parts of it. Parts that could be contracted out include –

- Forest valuation
- Access, roading and traffic control
- Harvesting and transport
- Marketing and sales.





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### Let the contractor run the harvesting

You may engage the services of a professional adviser to manage all aspects of the forest including engaging contractors. As a principal you would still have health and safety responsibilities to make sure the professional adviser is carrying out the work as agreed in the contract. You should ensure that, when hiring a contractor –

- Provide the contractor with all the information they need to be safe, which would include information about hazards and risks so they can complete an accurate safety plan
- Make sure that the contractor is competent, has a good safety record and properly trained staff
- Coordinate with contractors about their activities to ensure health and safety requirements are in place
- Monitor the contractor's health and safety performance.





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Keeping people safe is the top priority when managing safety. However, making sure that what you do and what others are doing on your behalf is recorded properly is almost as important.

Nobody wants an accident to happen, but if an accident occurs and someone is injured or killed, the first thing that WorkSafe will ask when making enquiries is to see the records. This information needs to be easily accessible and up-to date.

A documented health and safety system must be in place on site which includes –

- An accident register
- A procedure to investigate all accidents and near-misses
- A record of where all hazard warning signs, manned road access and temporary traffic control measures are in place
- An emergency plan which covers transport for emergencies and communication methods
- An evacuation plan
- Health and safety training plans with a checklists to ensure all staff, visitors and volunteers receive the same instruction about what to do in an emergency and how to keep safe on site
- Trained first aiders who are named and the location of first aid kit or station clearly displayed
- Records of the whole operation including an area and site map, planting dates and species, pruning and thinning as well as fertiliser and pesticide use
- Inventory of trees pre-harvest and post-harvest log volume.





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It will not be sufficient to say that someone was told what to do and how to do it safely if there is no record to back it up. It may be time-consuming to keep regular records, but there is no option if you want to be able to show that you, and your contractors, did everything practicable to make a safe working environment.





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As a principal you must monitor the performance of the contractor while the work is being carried out. You may need to check regularly that the conditions of the contract are being met, as well as health and safety, quality and environmental requirements. Be sure to record and document these checks. The contractor should also check that you, the principal, are meeting your obligations included in the contract.

Your health and safety obligations are continual, they do not stop until the work has completely finished. Be sure to keep monitoring that –

- People working in the area are competent and meant to be there, familiar with the health and safety requirements and make themselves and their whereabouts known to others working in the area
- The health and safety training plan remains up to date and relevant
- New staff continue to receive proper induction when starting work
- The incident and injury register is maintained and serious injuries are reported to WorkSafe.





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Forestry work, and especially tree felling, is dangerous work and many people have been killed or seriously injured in harvesting operations. Only fully trained and competent forestry workers should be cutting down or pruning trees in any forest or woodlot.

There are a number of significant health and safety hazards and risks that need to be controlled to make sure everyone works in a safe manner. As a principal you have a duty of care to make sure these hazards are well managed and will not injure anyone on or near the worksite.

This section outlines the good practice methods for managing particular hazards when working in a forest.

### Tools and equipment

Anyone using tools or equipment must –

- Be trained and competent
- Wear all required personal protective equipment and clothing
- Only use the equipment for its intended purpose
- Keep it well maintained and report or fix faulty equipment immediately
- Use it with all safety features and guarding in place
- Transport it safely so it does not cause harm to anyone else
- Have a safe refuelling method.





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### Vehicle safety

Anyone using a vehicle must –

- Select the right vehicle for the job
- Be trained and hold the appropriate class of licence for that vehicle
- Not be under-age to drive a vehicle
- Only use the vehicle if there is a valid Warrant of Fitness, suitable seating, working seatbelts for all passengers and secure stowing for equipment.

### Working at height

Anyone working at height must –

- Have safety measures to prevent falling
- Use ladders safely and properly
- Use appropriate tools for job
- Be aware of falling limbs
- Carry tools on a tool belt
- Cover blades when not in use
- Work in a safe manner and not over-reach.







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### Personal protective gear

Anyone using personal protective equipment must be trained in its use. Appropriate protective equipment and clothing must be provided to any working doing felling, namely –

- High-vis clothing
- Leg protection
- Safety footwear
- Safety helmets
- Hearing and eye protection
- Gloves.

Additional safety gear where needed includes harnesses and belts, respiratory protection where there are fumes or dust and protective clothing for handling chemicals.

### Tree felling causes of injury

There are seven common causes of injury in tree felling. Anyone involved in tree felling activities must make sure the following main risks are managed –

- Working too close to other people or equipment
- Incorrect or poor felling technique
- Broken tree limbs or branches hitting workers
- Hung-up trees left standing, or not felled using correct methods
- Stem movement or rebound and butt swing
- Forestry workers being struck from behind by an object or tree
- Felling dead trees.





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### Tree felling plan

Anyone felling or pruning trees must be trained and competent and follow the five step tree felling plan which includes –

- Site assessment of slope, weather and obstructions
- Individual tree assessment such as interlocked branches, lean and crown weight
- Preparation of the work area and escape route
- Use of safe tree felling techniques with the right equipment, maintaining the equipment and wearing correct protective gear
- Procedures to retreat and observe.

### Health and well-being

Health and well-being is just as important as safety. Be aware of this and have measures to minimise –

- Fatigue by ensuring that adequate breaks are taken
- Hearing loss from noise exposure
- Sunburn and over exposure to strong sun
- Vibration injury from power tools
- Cold resulting from poor or unsuitable clothing
- Poor nutrition by making sure correct breaks for food are taken
- Dehydration and provide access to drinking water
- The effects of stinging or biting insects and have first aid to treat stings and bites
- Stinging and scratching undergrowth
- Over-exertion, sprains and strains
- Slips and falls.





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### Other references

- *Approved Code of Practice for Safety and Health in Forest Operations: Roles and Responsibilities of Principals and Contractors*, WorkSafe NZ, (2014)
- *New Zealand Forest Engineering Manual*, NZ Forest Owners Association, (2011)
- NZTA's *Code of practice for temporary traffic management*, (2012)
- *Approved Code of Practice for Safety and Health in Forest Operations*, WorkSafe NZ, (2012)
- *Best Practice Guidelines for Safe Manual Tree Felling*, WorkSafe NZ, (February 2014).

### Websites

- Farm Safe – [www.farmsafe.co.nz](http://www.farmsafe.co.nz)
- Forestry Industry Contractor's Association – [www.fica.org.nz](http://www.fica.org.nz)
- Competenz – [www.competenz.org.nz](http://www.competenz.org.nz)
- SafeTree – [www.safetree.nz](http://www.safetree.nz)
- Worksafe NZ – [www.worksafe.govt.nz](http://www.worksafe.govt.nz)

