

Chapter 2

The operator



In this chapter you will find out:

- ✓ What it takes, from professional operators.
- ✓ What training you need.
- ✓ How to manage fatigue and emergencies.
- ✓ Ways to work with hand fallers.

Being a winch-assist operator is a challenging job. It's not for everyone. You are a professional in a million-dollar setup.

This chapter covers the important aspects of having what it takes for the job, the training needed, and aspects of self-care,

including fatigue management, when to stop, and working alone.

Mechanised felling with a winch-assist machine is not possible everywhere, and another critical part of this chapter is working with the hand feller.

Having what it takes

Experienced operators were surveyed anonymously on their views around what it takes to be a good operator. They said:

1. A planning mind, always thinking multiple steps ahead.
2. Trusting the machine and your ability
3. Knowing limits of the machine and oneself.
4. Experience and competence, and never complacency.
5. Having patience and being calm under pressure.
6. Always consider the whole job and ways to make it all go smoother.
7. Goal setting and taking pride in your work.

Important messages experienced operators want to pass on

1. Check your gear and trust it – anchor, electronics, rigging and machine!
2. Work within your limits.
3. Plan and have a Plan B. Be adaptive to changing situations.
4. There are places you don't winch-assist. Don't be forced to go there.
5. Stay focussed. Take regular breaks and stop operating if you've lost concentration.
6. Take your time. Don't let production pressure affect your decisions.
7. Ensure you can see the ground, and look up as well as down.
8. Make sure you can always get out of where you've gone.
9. Look how the winch rope(s) lay. That's where they take you back up the slope.
10. Know when to stop and leave the remainder for hand felling, even if it is just a few trees.
11. Always keep things clean for the hand fallers, just in case they need to finish things off.

Things that affect an operator's work

Headspace

mind on task, avoids distractions, rushing, complacency, or fatigue.

Attitude

healthy knowledge and respect for hazards, listens to supervisor, follows plan.

Competency

experience and skills with the machine, and harvest sites.

Planning

time spent pre-planning, thinking about next steps, adapt to change.

Hazard ID

quality maps and felling plans, identifying changing conditions and unforeseen hazards; knows how to manage and when to stop. Knows when to ask for help.

Equipment

know the physical capabilities of each machine and the harvest block.

Supervisor's competency and attitude

understands the plan and how to implement, recognises when adjustments are needed, acts to implement, communicates with the operator; avoids a production-only attitude.



Delay steep slope work until a suitable machine or operator is available.

Winch-assisted operator's training requirements

Operators for winch-assisted felling are often trained and experienced mechanical felling operators.

The operator, after training, must be able to:

- Demonstrate knowledge, and safe operation of the winch-assisted system.
- Set up a new winch-assist line.
- Conduct daily pre-start and maintenance checks.
- Identify site hazards and describe how associated risks are controlled.
- Describe factors that influence harvester stability.
- Minimise both total loads, as well as shock loading on the cable(s).
- Shutdown/isolate the winch system in an emergency situation.

General mechanised operator training requirements

- The operator must be suitably trained or under supervised training.
- The operator must have competency assessed regularly. The assessment should be organized by the employer, or if self-employed, by the operator. The assessment should be undertaken by a person who sufficiently understands winch-assisted operations.
- All training must be documented.
- Trainee mechanised fallers must receive adequate supervision. The level of supervision is determined by the level of competency demonstrated by the trainee.

Unit standards for winch-assisted felling

The following NZQA unit standards have been specifically developed for winch-assist systems:

Unit Standard #	Description
30583	Establish an anchor for cable-assisted forestry machine
30584	Demonstrate knowledge of cable-assisted forestry machine operation
30585	Operate cable-assisted forestry machine
30586	Manage cable-assisted forestry machine operation

A fully trained operator, depending on the machine type and harvesting method, may hold the following NZQA Unit Standards:

Unit Standard #	Description
1231	Prepare wire ropes for harvesting operations
6935	Operate an excavator based tracked machine in a forestry situation
6941	Demonstrate knowledge of forest mechanised harvesting
6945	Fell trees using a mechanised harvesting machine
6947	Bunch tree lengths for extraction or processing
17771	Carry out line shifts in a cable harvesting operation using a mobile tailhold machine
22994	Demonstrate knowledge of factors that affect the performance of forestry workers
24590	Operate a self-levelling machine in a forestry situation
30587	Shovel and Bunch tree stems or logs

Some operators may not hold some unit standards, e.g. 1231 and 17771 in a groundbase crew. If the operator doesn't have the specialist skills then someone trained or qualified should be available to assist, e.g. rope splicing or line shifts.

Example – Winch-assisted operator training programme

Winch-assist training typically starts with learning skills on mechanised felling machines, and as competency is reached, training is progressed to steeper terrain and finally to winch-assisted harvesting.

Mechanised Faller Classification	Skill Development and Supervision	SBOs Frequency by Contractor
<p>Trainee Operator</p> <p>Less than 6 months experience or 500 hours on the machine.</p> <p>Will be working towards the following qualification: Forest Operations Advanced – Mechanised Tree Felling.</p>	<p>As a minimum the operator will have spent 20 working days (160 hours) felling/ shovelling on slopes less than 22 degrees before undertaking further training on slopes exceeding 22 degrees.</p> <p>An Intermediate or experienced operator will supervise and support until competency is achieved.</p>	<p>Training notes shall be kept. These should record date, training and observations.</p> <p>SBOs will occur monthly by a suitably qualified or experienced person.</p> <p>The Contractor or plant supplier will provide reference material such as operator manuals to the trainee.</p>
<p>Intermediate Operator</p> <p>More than 6 months experience and 500-1000 hours on machine.</p>	<p>An experienced operator will supervise and assist.</p> <p>The operator shall be given sufficient time to become familiar with a new machine's controls and capabilities.</p>	<p>Training notes shall be kept.</p> <p>SBOs* will occur monthly for the first 3 months, then quarterly by a suitably qualified or experienced person.</p> <p>The contractor will provide reference material like operator manuals to the trainee.</p>
<p>Experienced Operator</p> <p>> 12 months experience.</p> <p>Holds a Forest Operations Advanced – Mechanised Tree Felling certificate plus the winch-assist unit standards 30583-87, or be in a signed training agreement with a provider to achieve these.</p>	<p>The operator's competency is periodically assessed for by a suitably qualified or experienced person.</p> <p>Indirect supervision is provided to an experienced operator.</p>	<p>The Contractor or plant supplier will provide reference material like operator manuals.</p> <p>SBOs* will initially occur quarterly by a suitably qualified or experienced person until competency achieved. Then 6 monthly.</p>

* Top Spot assessments are equivalent to an SBO.

Operator fatigue plan

Winch-assisted harvesting can be demanding, especially on steep ground and in tough conditions. It is essential to maintain concentration. A fatigue plan helps the operator manage their work health and be 'fit for work'.

It helps if you eat and drink well, have a good night's sleep, exercise, and take work breaks.

Get training on fatigue, so you know what to look for and how to manage it.

Safetree Fatigue Management Guidance

safetree.New Zealand/wp-content/uploads/2016/11/Fatigued_-Or-Fit-for-work_-.pdf

The following may help develop a fatigue management plan:



- Incorporate a minimum 15-minute break every 3 hours or two 30-minute breaks per day. Microbreaks of 5 minutes per hour often work well.
- Limit work to no more than:
 - 13 hours per day, excluding rest breaks, but including travel.
 - 65 hours in 7 days, including travel time.
 - 6 successive days.
- Keep a log of hours worked.



- Look after yourself. Take breaks and stop operating if you've lost concentration.
- Do not operate the machine if fatigued.
- Don't do unsafe work, and don't let production pressure affect your decisions.

Working alone procedure including a no response action plan

Working alone is work done in a location where a worker can't physically see or talk to other workers. This could expose them to additional risk should the work go not as planned especially where assistance from others is not readily available. An example of working alone in steep slope harvesting is an operator pre-falling before the main crew set up at the harvest site.

There must be a documented Working Alone Procedure, including a No Response Action Plan. The procedure must be known and understood by the crew and operationally followed.

A good place to confirm the plan for each day is during the tailgate meeting.

The operator needs to:

- Confirm their point of contact and the contact's location.
- Ensure that their whereabouts are known.
- Communicate their plans.
- Have an RT or cell phone for communication. A registered EPIRB gives an additional option.
- Make minimum hourly check-ins with a contact person.
- If the work plan changes, inform the contact person.



Establish an alternative communication plan where there is poor cell phone reception.