

ACOP - Tree Felling

11. TREE FELLING

11.1 GENERAL

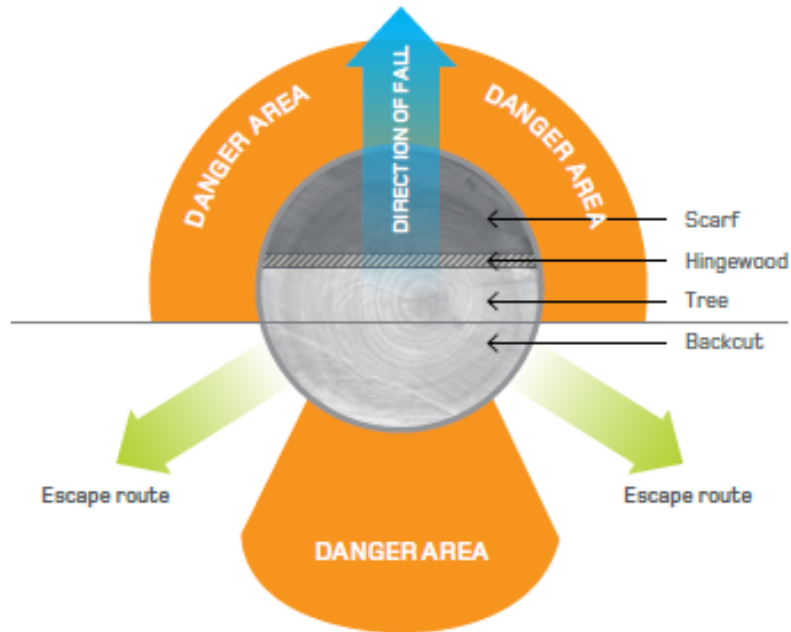
11.1.1 Clearfell tree fallers shall be in constant radio contact with another person.

11.1.2 A person shall always be available on site to monitor and assist with any tree felling activity if required.

11.2 ESCAPE ROUTES

11.2.1 For each tree being felled an escape route shall be cleared on the safest side.

Diagram 3: Escape route positioning



11.3 FELLING AIDS

11.3.1 When felling trees greater than 20 centimetres in stump diameter, the faller shall carry:

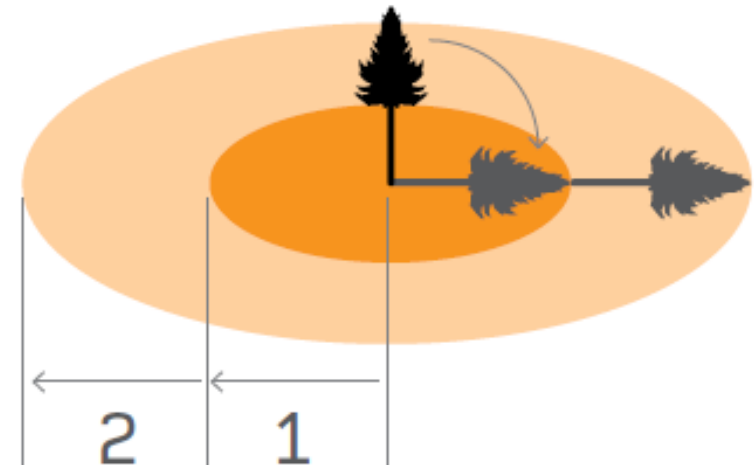
- › four wedges suitable for the size of tree being felled
- › a suitable tool for driving wedges.

Exception: For thinning to waste trees greater than 20 centimetres in stump diameter the faller shall carry a minimum of two wedges for the size of tree being felled.

11.3.2 Metal on metal contact during wedge use shall be avoided.

11.4 SAFETY ZONES – TWO TREE LENGTH RULE

Diagram 4: The two tree length rule



- 11.4.1 All fallers and harvester operators shall ensure that, within two tree lengths of the tree being felled, there are no:
- › mobile plant without appropriate protective structures
 - › working ropes – exception: cable yarder assisted felling or ropes that have been lowered to the ground and are not operating
 - › live powerlines – exception: where a felling plan has been authorised and agreed (for further information refer to section 2.14)
 - › other operations.

11.4.2 Mobile plant with the appropriate protective structures may work closer than two tree lengths but not closer than one tree length of felling operations unless they are directly assisting in the tree felling operation.

11.4.3 No person shall be closer than two tree lengths to a tree being felled, unless that person is:

- › the faller
- › assisting the faller
- › supervising
- › training others or being trained
- › observing or auditing.

Any person within two tree lengths of a tree being felled shall be under the direct control of the faller.

Exception: The faller is under the direct control of a trainer.

11.4.4 Aside from the tree faller no person shall operate a chainsaw within two tree lengths of a tree being felled.

Buddy cutting is not permitted.

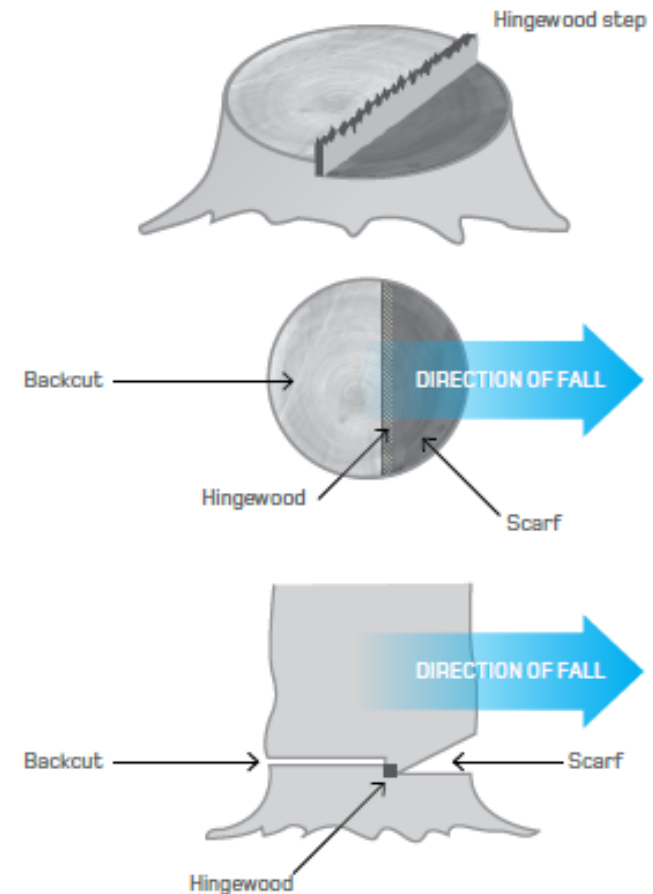
11.4.5 No tree shall be felled within two tree lengths of any road, railway or public access until the provisions of section 2.12: Signage and temporary traffic control have been complied with.

11.5 FELLING CUTS

11.5.1 All trees with a stump diameter greater than 20 centimetres shall be felled using a scarf, backcut and hinge wood.

11.5.2 The scarf and backcut of the tree being felled shall be completed before starting on the next tree.

Diagram 5: Basic tree felling cuts



11.5.3 Alternative cuts are permissible provided the faller is competent in those cuts.

11.6 HUNG-UP AND CUT-UP TREES

11.6.1 A hung-up or cut-up tree shall be brought to the ground immediately or the hazard managed until such time as it can be brought to the ground.

If the cut-up tree is to be brought down, refer to section 11.7: Tree driving.

11.6.2 Where a cut-up tree has sat back and needs to be recut, the scarf and backcut shall be a minimum of the tree diameter above the initial backcut.

11.7 TREE DRIVING

11.7.1 Tree driving shall only be used to fell trees that either:

- › are leaning against the intended direction of fall and cannot be safely felled using wedges
- › present additional hazards that could dislodge as the tree begins to fall, e.g., trees with a broken top
- › are hung-up or cut-up.

Refer to rule 11.6.1.

11.7.2 Tree driving shall not exceed one onto two trees.

11.7.3 When tree driving, the following minimum requirements shall be met.

11.7.4 The faller shall notify the person available to them that they intend to undertake a tree drive.

- › The faller shall notify the person available to them that the drive has been completed successfully.
- › If a one-onto-two tree drive is unsuccessful, falling shall cease until an observer is present to help plan management of that hazard.

11.7.5 A holding wedge shall be inserted in the backcut of each tree to be driven.

11.7.6 A minimum of two wedges shall be available to insert in the backcut of the driver tree.

11.8 MOBILE PLANT ASSISTED FELLING – GROUND BASED

11.8.1 The mobile plant shall have:

- › sufficient capacity and traction
- › rigging of sufficient length and strength (if used) to assist the tree in the intended direction of fall.

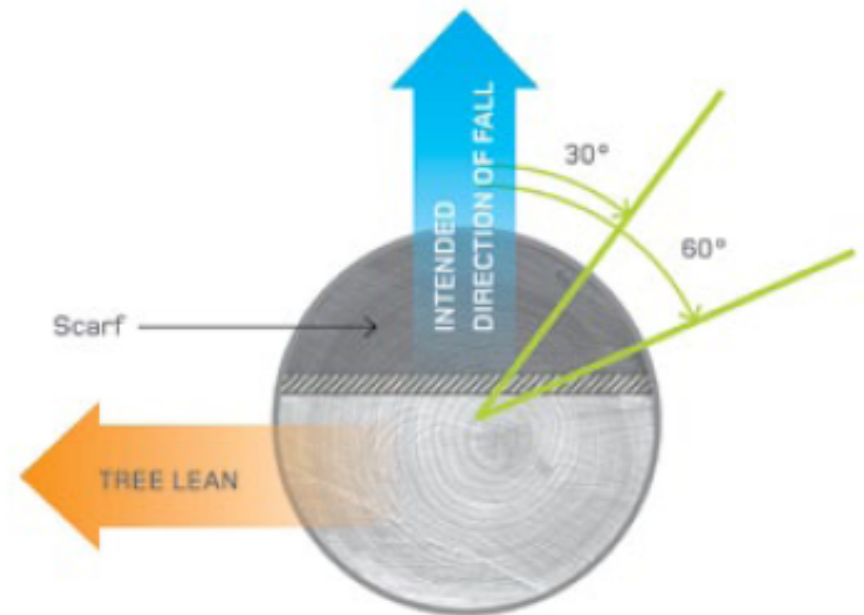
11.8.2 The tree faller shall not work directly under any raised blade or mobile plant accessory.

11.8.3 When pushing trees over, the attachment used to make contact with the tree shall have the facility to stop the tree from sliding sideways.

11.8.4 When pulling trees over, the winch rope shall be attached at least two metres above the felling cuts.

11.8.5 The winching mobile plant shall be positioned between 30 and 60 degrees from the intended direction of fall on the side opposite the lean. (Refer to diagram 6)

Diagram 6: Winch machine positioning



11.8.6 The faller shall insert a wedge in the backcut of any mobile plant assisted tree.

11.8.7 The faller shall move to an agreed safe position before signalling for the tree to be pushed or pulled over.

11.8.8 No tree shall be felled in a direction or manner that will cause "shock loading" on the pulling rope.

11.9 MOBILE PLANT ASSISTED FELLING – CABLE HARVESTING

11.9.1 Cable harvesting assisted felling shall be planned to ensure:

- › only one tree at a time shall be felled using this method
- › an effective communication system is established between the tree faller and the yarder operator
- › trees shall be directionally felled to avoid falling over working ropes
- › no tree shall be felled in a way that will cause "shock loading" on the pulling rope.

11.9.2 When winching trees over, the winch rope shall be attached to the tree as high as practicable above the felling cuts.

11.10 TREE JACKS

11.10.1 There shall be two competent persons engaged on operations where tree jacks are used to fell trees against their lean.

11.10.2 Only tree jacks designed for tree felling shall be used.

11.11 WIND THROW

11.11.1 In areas of wind-thrown salvage, machine assisted felling shall be the first choice of felling mechanism.

11.11.2 Any manual faller required to work in wind throw shall have their competency assessed against NZQA Unit Standard 1270.

11.11.3 No person shall work directly under wind-wrenched trees.

11.12 TRIMMING

11.12.1 Workers shall not trim or head off at the felling face while standing on a tree which is suspended above the ground by more than 1.5 metres (ground level to the underside of the tree).