

		Diagnostic tools				Critical
		Written	Practical	Oral	Other	
ECS 2: Basic Tree Felling Techniques (Small Trees)						
What the chainsaw operator must be able to do: (Practical Test: Recommended guide bar size 30-38cm. Diameter of trees at felling height must be under effective guide bar length).						
Maximum time allowed 1hour30min						
Pre-requisite: ECC1						
ECS2-1	TAKE CARE OF YOURSELF (PPE) AND OTHERS AROUND YOU AT WORK - Candidate to wear appropriate PPE, sign RA & show ID:	√	√			1
1:1	Chainsaw safety trousers		√			1:1
1:2	Chainsaw safety boots		√			1:2
1:3	Safety helmet		√			1:3
1:4	Eye & ear protection		√			1:4
1:5	Gloves appropriate to task		√			1:5
1:6	Non-snag outer clothing		√			1:6
1:7	Personal /Squad First Aid Kit – on work site		√			1:7
1:8	Whistle/Mobile/Radio		√			1:8
ECS2-2	PLANNING THE WORK INCLUDING WHAT TO DO IN AN EMERGENCY - Candidate to identify hazards relevant to the site & trees to be worked on:	√	√			2
2:1	Risk Assessment – walk site, look and discuss		√			2:1
2:2	Method statement - verbal		√			2:2
2:3	Emergency planning - check information		√			2:3
ECS2-3	OPERATIONAL SAFETY CHECKS - Candidate to check chainsaw for condition/sharpness etc and pre-use safety:	√	√			3
3:1	Cold/Warm start method (ground/'leg lock')		√			3:1
3:2	Safe start distance from fuel (min.1m or greater according to national guidance, no spillage, gases released)		√			3:2
3:3	Chain brake tested with saw running		√			3:3
3:4	Saw checked for oiling (e.g. oil throw test or oil present on drive links)		√			3:4
3:5	Chain not moving when throttle released (no chain creep)		√			3:5
3:6	On/off switch is working (pull choke to stop if not, then label not to be used)		√			3:6
3:7	Chain tension 'warm' re-checked		√			3:7
ECS2-4	MEET LEGAL & SITE ENVIRONMENTAL REQUIREMENTS IN ACCORDANCE WITH NATIONAL STANDARDS - Candidate to check specifications:	√	√			4
4.1	Protection of fauna, flora, wildlife, waterways, site specifications etc, regards pollution/damage:					4.1
ECS2-5	PREPARE THE TREE FOR FELLING BY SAFE BRASHING - Candidate to remove low branches considering:	√	√			5
5:1	Correct "break-in"		√			5:1
5:2	Position of the saw in relation to the operator, bar on opposite side of stem or out of line of head/neck and body		√			5:2
5:3	Saw body not above shoulder height		√			5:3
5:4	Operating technique		√			5:4

5:5	Brushing close to the stem		√			5:5
ECS2-6	FELL A MINIMUM OF 2 TREES IN A SAFE & ERGONOMIC WAY - Candidate to fell <u>two</u> of the following tree types: upright; backward weighted; forward weighted. (Randomly chosen for the candidate from pre-marked trees). One tree should be hung-up.	√	√			6
6A:1	Trees Inspected for signs of rot or decay, loose branches & accurate evaluation of weight distribution and selection of fuel storage		√		√	6A:1
6A:2	Choice of felling direction made		√			6A:2
6A:3	Escape routes selected and prepared		√		√	6A:3
	Candidate to cut a sink to determine felling direction on upright, forward or backward weighted trees, using:					
6B:1	Safe stance		√			6B:1
6B:2	Top sink cut normally between 45-60°		√			6B:2
6B:3	Bottom sink cut as close to ground as practicable (unless site criteria is different)		√			6B:3
6B:4	Cuts 20-30% into stem unless tree condition dictates otherwise		√			6B:4
6B:5	Sink cuts to meet accurately (not undercut)		√		√	6B:5
6B:6	Sink facing in the chosen direction of fall		√			6B:6
6B:7	Chain brake as appropriate		√			6B:7
	Candidate to make the main felling cut/s on upright, forward or backward weighted trees using a safe and effective felling method (e.g. a standard cut; a 'split-level' cut; a "boring cut" technique leaving rear hold; "Danish" / 'saved corner' cut; or any other cut) appropriate to the aspect of the tree.					
6C:1	Correct felling method chosen for the particular aspect of the tree		√		√	6C:1
6C:2	Safe stance		√			6C:2
6C:3	"Ears" cut to avoid tearing, at where appropriate depth and height to avoid tearing as appropriate		√			6C:3
6C:4	Site check for safety before the main felling cut started completed & shout verbal warning (engine off)		√		√	6C:4
6C:5	Main felling cut no more than 10% of tree diameter above level of sink		√			6C:5
6C:6	Felling cuts made with "pushing chain" or "pulling" chain as appropriate		√			6C:6
6C:7	Safe withdrawal of the saw and chain brake used as appropriate		√			6C:7
6C:8	A hinge retained appropriate to the tree diameter, aspect and condition		√		√	6C:8
6C:9	Appropriate aid tools as required to fell tree		√			6C:9
6C:10	Use a prepared escape route as soon as the tree begins to fall, not losing sight of tree		√		√	6C:10
6C:11	Look up and check for loose branches, tops etc.		√			6C:11
	Candidate to fell a tree which is forward weighted using a safe and effective felling method:					
6D:1	Correct felling method chosen for the particular aspect of the tree		√		√	6D:1
6D:2	Safe stance		√			6D:2
6D:3	"Ears" cut to avoid tearing, at where appropriate depth and height to avoid tearing as appropriate		√			6D:3
6D:4	Site check for safety before the main felling cut started completed & shout verbal warning (engine off)		√		√	6D:4
6D:5	Main felling cut no more than 10% of tree diameter above level of sink		√			6D:5
6D:6	Felling cuts made with "pushing chain" or "pulling" chain as appropriate		√			6D:6
6D:7	Safe withdrawal of the saw and chain brake used as appropriate		√			6D:7
6D:8	A hinge retained appropriate to the tree diameter, aspect and condition		√		√	6D:8
6D:9	Appropriate aid tools as required to fell tree		√			6D:9

6D:10	Use a prepared escape route as soon as the tree begins to fall, not losing sight of tree		✓		✓	6D:10
6D:11	Look up and check for loose branches, tops etc.		✓			6D:11
ECS2-7	REMOVE BRANCHES & CROSSCUT STEMS IN A SAFE & ERGONOMIC WAY - Safe working practice will include:	✓	✓			7
7A:1	Correct stance and support of the saw on tree and/or right leg		✓			7A:1
7A:2	Left thumb around the front handle		✓			7A:2
7A:3	Neither handle released while the chain is moving		✓			7A:3
7A:4	Apply chain brake if reaching across bar and when negotiating obstacles		✓		✓	7A:4
	Candidate to Avoid:					
7A:5	Walking when saw is on same side of tree as operator		✓			7A:5
7A:6	Reaching too far round with saw on far side of tree		✓			7A:6
7A:7	Cutting towards legs or body		✓		✓	7A:7
7A:8	Using kick-back zone on tip of guide bar		✓		✓	7A:8
7A:9	Overreaching with chainsaw		✓			7A:9
7A:10	Straddling the stem		✓			7A:10
7A:11	Working on lower side of tree on side slopes		✓			7A:11
	Candidate to demonstrate:					
7B:1	Systematic sequence of cuts and position of the saw to remove branches as appropriate for the branching habit		✓			7B:1
7B:2	All branches removed flush with the stem		✓			7B:2
	Candidate to remove the top of the tree in accordance with site specifications:					
7C:1	Cut top at appropriate diameter		✓			7C:1
7C:2	Remove top with a safe method of cutting		✓			7C:2
7C:3	Dispose of top according to Job Specification		✓			7C:3
	Candidate to turn tree and remove 'under' branches:					
7D:1	The stem turned using appropriate techniques &/or aid tools		✓			7D:1
7D:2	Using the stem for protection when removing remaining branches		✓			7D:2
7D:3	Using a safe and effective method to sever remaining branches		✓			7D:3
7D:4	All branches removed flush with the stem		✓			7D:4
	Crosscut pole length timber to a specification. Candidate to use:					
7D:1	Safe stance		✓			7D:1
7D:2	Reducing cuts as appropriate		✓			7D:2
7D:3	Correct boring technique		✓			7D:3
7D:4	Correct angle and depth of cuts		✓			7D:4
7D:5	Compression cut first as appropriate		✓			7D:5
7D:6	Correct location of final (tension) cut		✓			7D:6
7D:7	Correct use of throttle		✓			7D:7
7D:8	Correct accuracy of cuts		✓			7D:8
7D:9	Correct use of chain brake		✓			7D:9

7D:10	Accuracy of measurement within reasonable tolerance		✓				7D:10
7D:11	Appropriate aids for rolling / lifting		✓				7D:11
ECS2-8	TAKE DOWN A HUNG-UP TREE IN A SAFE & ERGONOMIC WAY (without a winch) : Safe working practice will include:	✓	✓				8
	Candidate to partially sever the hinge of hung-up tree with the chainsaw using:						
8A:1	Correct stance		✓				8A:1
8A:2	Safe position to side of tree		✓		✓		8A:2
8A:3	Safe cutting technique for removal of the hinge, leaving part(s) of hinge attached as appropriate to take down method utilised		✓				8A:3
8A:4	Safe withdrawal of the saw		✓				8A:4
	Candidate to take down the tree using hand tools:						
8B:1	Aid tool positioned and attached safely & effectively		✓				8B:1
8B:2	Straight back		✓				8B:2
8B:3	Correct pushing/pulling technique as appropriate		✓				8B:3
8B:4	Correct grip		✓				8B:4
8B:5	Repositioning aid tool as appropriate		✓				8B:5
8B:6	Method applied avoids working in danger areas		✓		✓		8B:6
8B:7	Release of aid tool as tree falls		✓				8B:7
8B:8	Use escape route(s) as appropriate		✓				8B:8
8B:9	If tree does not fall through the canopy when rolled, sever last part of the hinge from a safe position & 'walk down' e.g. wooden pole, using correct lifting technique		✓				8B:9
8B:10	Tree in a stable condition on the ground, mechanical (e.g. winch) takedown arranged, or tree clearly taped off as a hazard if necessary		✓				8B:10
8B:11	Site left safe & tidy		✓				8B:11
What the chainsaw operator must know and understand: (Theory Test) ECS2:							
1	Demonstrate knowledge of how to identify hazards and comply with the control procedures of risk assessments	✓	✓	✓		✓	1
2	Demonstrate knowledge of emergency planning and procedures for the site using the actual emergency plan for that site	✓	✓	✓		✓	2
3	Demonstrate knowledge of electrical emergency planning and procedures	✓					3
4	Describe the implications of terrain, ground conditions, season, weather and species	✓		✓			4
5	Demonstrate knowledge of the legal requirements for felling trees in different circumstances	✓		✓			5
6	Demonstrate knowledge of the causes of, and how to prevent, potential pollution, environmental damage	✓		✓			6
7	Demonstrate knowledge of how and why to initiate and maintain effective communication	✓		✓			7
8	Demonstrate knowledge of your own role in company working practices and industry good practice	✓	✓	✓			8
19	Demonstrate knowledge of how to apply ergonomic working methods and the implications of manual handling regulations	✓	✓			✓	19
10	Demonstrate knowledge of how to move or roll timber by hand and with mechanical assistance	✓					10
11	Demonstrate knowledge of how to recognise signs of disease and decay in trees and the effects of these on safety	✓		✓		✓	11
12	Demonstrate knowledge of how to take down hung up trees safely and in line with industry guidelines including recognition of bad practice	✓	✓	✓		✓	12
13	Demonstrate knowledge of safe techniques of delimiting	✓				✓	13
14	Demonstrate knowledge of safeguarding and maintaining your own health and safety and communication with those likely to be affected by your work	✓	✓				14

15	Demonstrate knowledge of the dangers of using a pushing chain	√	√			√	15
		Written	Practical	Oral	Other	Critical	