

CHAPTER 18

Shaping of Broadleaves

(Sub scheme of the Reconstitution of Woodlands scheme)

18.1 Scope

The objective of this scheme is to produce broadleaf plantations with single straight stems which will in turn produce high quality butt lengths of valuable hardwood timber. Formative shaping is required when young trees have multiple leaders or disproportionately large side shoots. This occurs mainly as a result of frost or wind or bird damage.

Broadleaf plantations (except Alder) aged 3 to 4 years may normally require formative shaping. The cost of this operation is included in the afforestation 2nd installment grant payment. This scheme applies to broadleaf plantations (except Alder) that require additional shaping no more than 3 years after receiving the first shaping. This operation will normally occur at around age 6.

18.2 Silviculture

It is recommended that landowners carrying out this work familiarise themselves with best practice. A training booklet from Teagasc is available and the Forest Service and Teagasc often run demonstration days on this subject.

Shaping involves the encouragement of apical dominance on a plant by the removal of multiple leaders with a secateurs, pruning saw or loppers. The shaping technique involves the retention of the 'branch bark ridge', an external ridge which is readily visible at the trunk/branch junction of most trees. The knife or secateurs should be disinfected regularly with an alcohol swab during the shaping operation. There is no need to remove the lower branches unless they are very large (>50% of the main stem). All trees that can be readily shaped should be shaped. Trees that are very poorly formed should not be shaped and should be either stumped back or let grow in order to shade out the side branches of neighbouring better formed trees. Trees should only be shaped during the months indicated in Table 20.

Table 20. Timing of Shaping

Species	Best period for shaping	2nd best period for shaping
Oak	December	mid Winter
Ash	June to August	mid Winter
Beech	June to August	mid Winter
Sycamore	June to August	mid Winter
Cherry	June to August	mid Winter

The aim of the first shaping is to achieve over 60% grade 1 and grade 2 trees for most broadleaved species (see Figure 13). The aim of the second shaping is to achieve over 50% grade 1 and grade 2 trees (at 2-4 metres in height) for most broadleaved species.

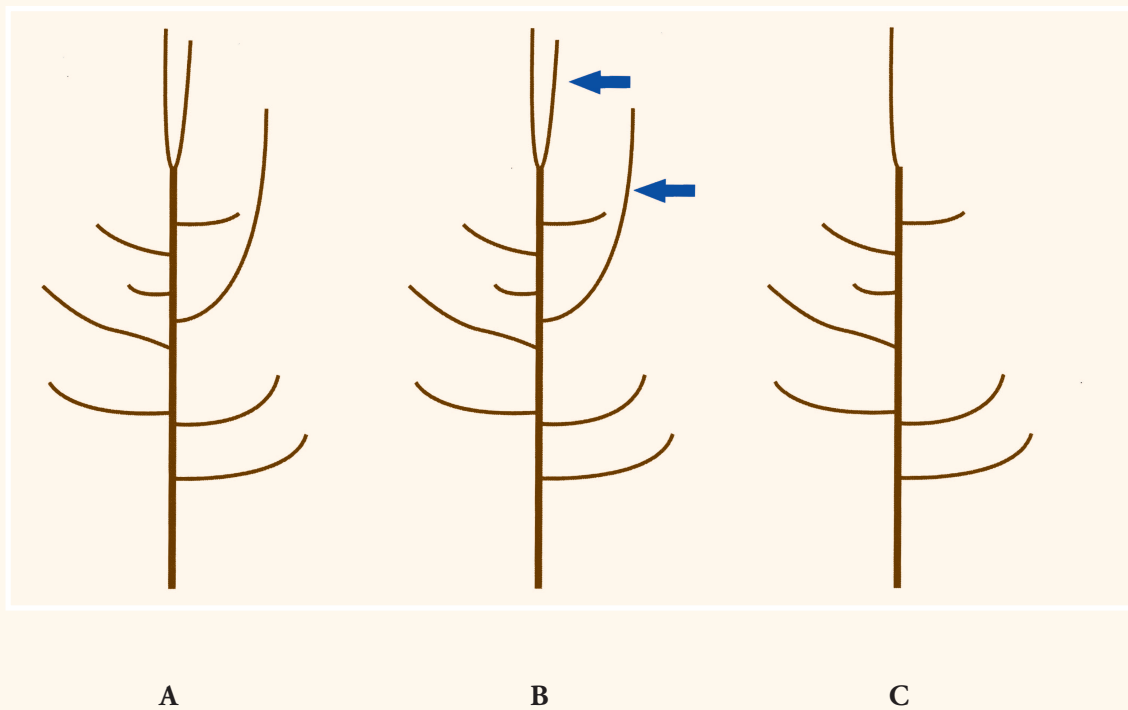


Figure 12 'A' shows a young broadleaf tree in need of formative shaping. 'B' identifies the branches that must be removed if the tree is to produce a single straight stem. 'C' shows how the tree looks after shaping. Note the many side branches that are not competing to become the leading shoot are left on the tree.

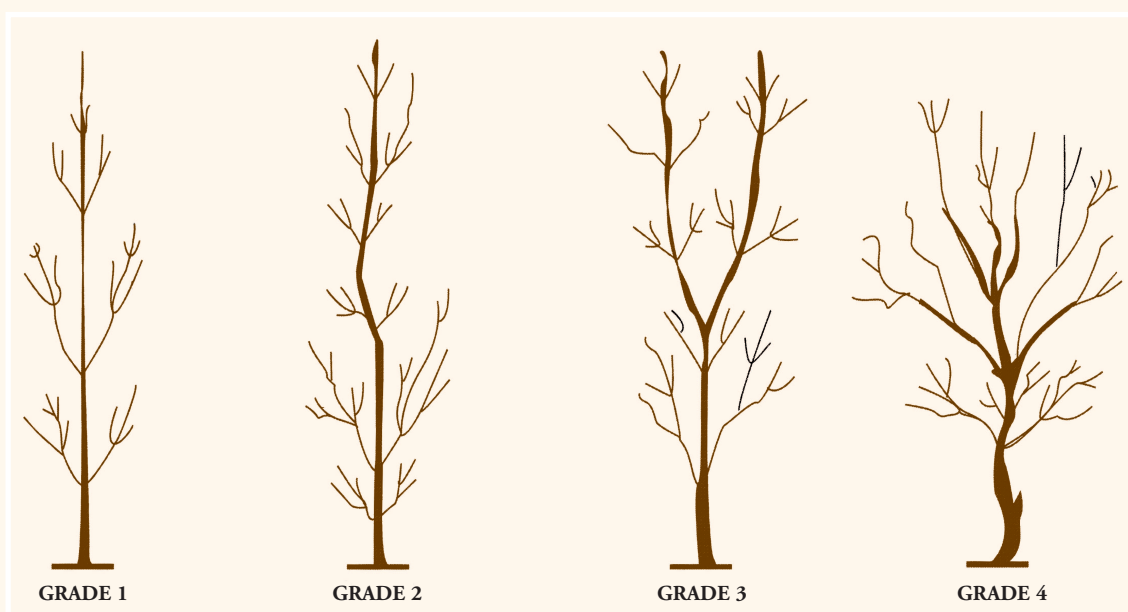


Figure 13. Standard Quality Grades for broadleaved trees

Table 21. Standard Quality Grades for broadleaved trees

	Grade 1	Grade 2	Grade 3	Grade 4
Overall	Very good tree	Good quality tree	Poor quality tree	Very poor tree
Stem straightness	Straight stem	Stem can be wavy	Crooked stem	Crooked stem
Apical dominance	Single leader	Not full apical dominance	Poor apical dominance	Poor apical dominance
Form	Narrow form	good form	Poor form	Very poor form
Co dominants	No strong co dominants	No strong co dominants	Strong co dominants	Multiple co dominants
Branching	Light branches	No more than 1 heavy branch	1 or more heavy branches, 1 or more forks	Heavy branches, extensively forked
Shaping required	No shaping required	1 or at most 2 cuts to be converted into grade 1 tree	Numerous cuts to be converted into grade 1 or 2 tree	Shaping not likely on cost and crop balance grounds

18.3 Application Procedure

18.3.1 Approval

Before work commences on site written approval from the Forest Service must first issue. The following should be submitted to the Forest service:

- Form 1 (signed by applicant) This scheme does not require the forms to be signed by an approved forester
- Species Map as defined in Chapter 10, a photocopy of the original certified species map highlighting area to be shaped is adequate for this scheme.

Following a satisfactory site inspection from a Forest Service Inspector written approval with recommendations will issue.

18.3.2 Payment

Following completion of the site works, the following should be submitted to the Forest Service:

- Form 2, This scheme does not require the forms to be signed by an approved forester
- Species Map, as defined in Chapter 10, a photocopy of the original certified species map highlighting area to be shaped is adequate for this scheme,
- Statement of Costs
- Invoice(s), Where works are carried out by the applicant a statement of the costs claimed for his/her own labour must be provided detailing the hours worked and cost per hour. (See template Appendix 21)
- Tax clearance certificate(s) or a C2 Certificate for contractor(s) used
- A valid Mandate (where the grant is mandated to a contractor or bank). Details of the contents of a mandate are listed in Appendix 2 and a sample Bank Mandate is in Appendix 3.

18.4 Grant Rate

Max. €253.95 /ha (once off payment).