

# FARM FORESTRY SERIES NO. 3

## SHAPING YOUNG BROADLEAVES FOR QUALITY TIMBER

REVISED



# Shaping

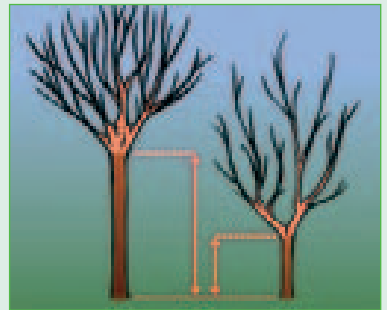
Shaping is the process of removing forks (and very large competing side branches) in order to produce long straight lengths of timber for sale to high value markets.

Forking may be caused by exposure, frost, animal damage, insects or diseases. Your crop should be checked regularly.

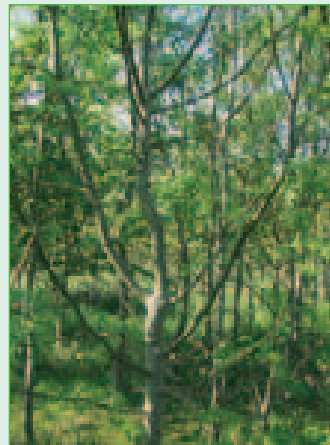
It is easier and cheaper to shape when branches are light. It is not necessary to remove light side branches.

Shaping is a requirement for payment of the second instalment grant at year 4 for broadleaf plantations.

If a tree forks, the fork always remains at that height on the tree. The drawing shows two trees. The dark brown colour indicates the usable length of timber. The tree on the right forked while still young. This resulted in a much shorter length of usable timber.



*High value tree:  
Single straight stem, no large side  
branches*



*Low value tree:  
Forked, crooked, damaged or diseased  
stem, excessively large side branches*

# How to shape



**Choose a single straight dominant shoot as a leader:**

Correct forks by removing the weaker side of the fork



Remove excessively large side branches (larger than half the diameter of the main stem)



*Shape now: this young tree is growing vigorously*

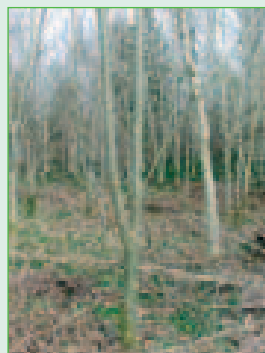
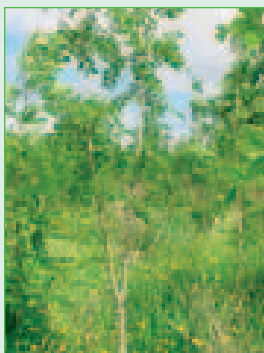
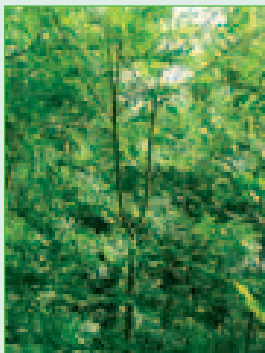
Remove other side branches **only** if they are competing with the main leading shoot.

Shaping should start early if trees are growing vigorously.





## **Remember:**

- More than one shaping is usually necessary
- Do NOT remove more than 1/3 of the foliage
- Only remove branches that may cause a defect

The trees in the photos below should have been shaped already.  
Shaping has been left very late.



## Standard quality grades:

Grade 1	Grade 2	Grade 3	Grade 4
			
<p><b>Grade 1: very good</b>                      straight stem                      single leader                      narrow form                      light branches                      no forks                      no shaping required</p>	<p><b>Grade 2: good</b>                      stem can be wavy                      good form                      one heavy side branch                      no forks                      one or at most two cuts to be converted into grade 1</p>	<p><b>Grade 3: poor</b>                      crooked stem                      poor form                      one or more heavy branches                      one or more forks                      numerous cuts to be converted into grade 1 or 2</p>	<p><b>Grade 4: very poor</b>                      crooked stem                      very poor form                      many heavy branches                      extensively forked                      shaping not economic</p>

## When to shape

The optimal timing for shaping is:

Species	Best period for shaping	2nd best period for shaping
Oak	Mid Winter	June to July
Ash/sycamore/cherry	June to July	Mid Winter
Beech	June to August	Mid Winter

Do NOT shape during Spring

# The correct cutting technique



When removing a fork or branch, do not damage the branch collar.



Use sharp, good quality secateurs. Loppers and a pruning saw may have to be used if shaping is left very late.

A correct cut is made just outside the branch collar without leaving a peg.



*Correct: clean cut, no peg*



*1 year later: wound has healed*



*wrong: peg left, bark damaged, possible infection*



*wrong: branch collar cut off, bark damaged*



Shaping may need to be repeated until the main stem is up to 6 metres in length. Telescopic pruning saws are very useful to carry out this operation.

It is sufficient that approx. half of the trees have good form: the remainder will be removed in early thinnings.

Teagasc provides advice and short courses on the correct techniques for shaping broadleaved trees.

These services are backed up by forestry research work at Teagasc, Kinsealy and are provided in conjunction with the Forest Service.

For further details on shaping grants and short courses, contact your local Teagasc office.