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*
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).

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

Shape now: this young tree is growing vigorously.

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.

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**Standard quality grades:**

<table>
<thead>
<tr>
<th>Grade 1</th>
<th>Grade 2</th>
<th>Grade 3</th>
<th>Grade 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Tree grade 1" /></td>
<td><img src="image2" alt="Tree grade 2" /></td>
<td><img src="image3" alt="Tree grade 3" /></td>
<td><img src="image4" alt="Tree grade 4" /></td>
</tr>
</tbody>
</table>

**Grade 1: very good**
- very good straight stem
- single leader
- narrow form
- light branches
- no forks
- no shaping required

**Grade 2: good**
- stem can be wavy
- good form
- one heavy side branch
- no forks
- one or at most two cuts to be converted into grade 1 or 2

**Grade 3: poor**
- crooked stem
- poor form
- one or more heavy branches
- one or more forks
- numerous cuts to be converted into grade 1 or 2

**Grade 4: very poor**
- crooked stem
- very poor form
- many heavy branches
- extensively forked
- shaping not economic

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**When to shape**

The optimal timing for shaping is:

<table>
<thead>
<tr>
<th>Species</th>
<th>Best period for shaping</th>
<th>2nd best period for shaping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oak</td>
<td>Mid Winter</td>
<td>June to July</td>
</tr>
<tr>
<td>Ash/sycamore/cherry</td>
<td>June to July</td>
<td>Mid Winter</td>
</tr>
<tr>
<td>Beech</td>
<td>June to August</td>
<td>Mid Winter</td>
</tr>
</tbody>
</table>

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
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.