

How to measure the girth of your tree

To find out where to take the girth measurement, using a tape measure, measure 1.3 metres up from the base (usually around chest height in an adult). The girth measurement should be given in metres to the nearest 10 cm (i.e. to one decimal point).

When measuring the girth of your tree the 'lumps and bumps' may get in the way. In this case take your measurement just above or below, whichever is the narrowest or easiest to do, but no lower than 0.5 metres. If you have to do this, please give the measurement up from the base that you took the girth measurement from and explain why. Sometimes the tree may also be covered in ivy, making it an inaccurate measurement. In this case try and assess how thick the covering of ivy is and remove this value from the measurement.

To age your tree, divide this girth measurement (using the "cm" total) by the rule of thumb for annual growth given overleaf. This value is the age. Remember to consider if it is a solitary tree, or growing in a woodland, or if it is a species that does not follow the rules given.

Although there are ways of measuring a tree on your own we recommend you do this in pairs for safety reasons. Always remember to get permission from a landowner if you need to leave the public footpath, otherwise you may well be trespassing.

If you are interested in undertaking tree surveys please contact the Community Heritage Initiative:

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Ancient trees: How to measure and age them



*So what makes your tree an
ancient tree?*

In conservation terms the older the tree the better....

An old age problem.....



Ancient trees are key features of the British landscape, and are important for wildlife. In Leicestershire and Rutland they are prioritised as a target wildlife habitat in our Biodiversity Action Plan. They can be used to help us interpret the history of the landscape through their ageing. This leaflet explains how.

Trees as they age, grow in girth. It is this regular rate of growth that can be used to approximately age a tree. A definition, used by conservationists, of an ancient tree, is one no less than 3.77 metres in girth at 1.3 metres above root level.

As a rule of thumb, a woodland tree has an average growth rate of 1.25 cm of girth per year of life. A solitary tree will grow at around 2.5 cm of girth for each year of its life. For example, a solitary tree measured to have a girth of 250 cm can be aged using the following technique. Divide the girth measurement (trunk circumference) by the average annual rate of growth (in this case 2.5 cm). The age of the tree can be estimated as 100 years.

However there are exceptions:

Yew tree Girth	Age in Years
3 metres	242
4 metres	292
5 metres	720
6 metres	820
7 metres	1,000

The Yew, *Taxus baccata*, for example does not conform to any regular growth pattern. Yew trees are exceptionally slow growing and may have periods of dormancy as they become very old. Ancient yew trees are hollow and generally have a girth of no less than 5.1 metres.

Poplars and American giant conifers have girth growth rates 2 or 3 times faster than the rate of 2.5cm a year. Horse Chestnuts and many of the smaller species grow more slowly. When ageing pine trees count the number of spaces between the rings of branches growing up the trunk. They grow a new 'wheel' each year. This count can be indicative of the trees age.

Other features can often help age trees, for example:

- × Written records or old maps.
- × Archaeological remains or ancient burial mounds nearby, are indicators that a tree, for example the yew, could be part of an ancient site used by mankind for millenia.
- × A siting of a yew tree to the south or South-west axis of the church's nave suggests a Saxon site.

Whatever size your tree, whether it is a dead standing tree, leaning, upright, or fallen, it can be very valuable to wildlife, and especially if it has signs of any of the following:

- × visible fungi
- × hollows in trunk or elsewhere on the tree
- × dead boughs above 2m
- × wounds, for example a dropped branch scar



All of these attributes can be recorded as part of an ancient tree survey.