NATIONAL TRUST of Australia (Victoria)

SIGNIFICANT TREE REGISTER

TAKING TREE MEASUREMENTS

Many of the trees nominated for the National Trust Register of Significant Trees are nominated on the basis of their particularly large size. Size can be measured by any of height, girth or canopy spread. When considering the status of these trees, the Committee for the Register of Significant Trees often finds that the measurements provided are dubious, and sometimes very inaccurate. This can result in a worthy tree not being registered until members of the committee can verify the dimensions.

Accordingly we provide the following advice to assist those nominating trees to provide accurate measurements of height, girth and canopy spread. **Please note that all tree measurements must be in metres.**

Girth

Circumference (or girth) is measured at "breast height", which is taken to be 1.4m above ground level. The easiest way of making this measure is to place a tape measure around the trunk at 1.4m above the ground.

This measurement can also be calculated using the diameter of the single trunk of the tree. This requires the measurement of diameter at breast height, which is often recorded as DBH, which is again measured at 1.4 metres above ground level.

Spread

In measuring canopy spread, you should measure from the trunk to the drip-line (which is the outer edge of the canopy) on two opposite sides of the tree. Usually measurements are taken on a north-south and / or east-west axis. However this is not always possible given the location of some the trees in crowded gardens where access can be difficult.

If possible it is a good idea to measure spread at all four of the major compass points, as this gives a much better indication of the canopy shape and its impact on the site

Height

The last measurement of height is the one where we have the greatest inaccuracy. Whilst there are clinometers and height meters available, which will accurately measure tree height to within about 1/2 metre, these are moderately expensive and are inaccessible to most members of the general public. We urge the use of height meters or clinometers if you have access to these and a familiar with their use. We also remind you to determine the highest point of the canopy from a distance and measure to that point within the canopy, as it is often difficult to determine the highest point when you are close to the tree.

If you do not have access to a height meter or clinometer, we suggest a simple method for obtaining the height of a tree. Take a square of paper and fold it in half, this creates a triangle with a right angle and two angles of 45 degrees. Holding the triangle of paper with the right angle away from your eye and one of the sides horizontal, sight along the hypotenuse to the top of the tree. You may need to walk towards and away from the trunk a few times to determine the exact highest point of the tree.

Once you have reached the point where the highest part of the canopy is sighted, you know that the height of the tree and the distance you are from the base of the trunk are the same. So you simply measure from the base of the trunk of the tree to the point where you sighted the top of the tree along the 45-degree angle. You then add the height from the ground to your eye and this will give the tree height, normally to within accuracy of 1 metre.

See below re photographing trees.

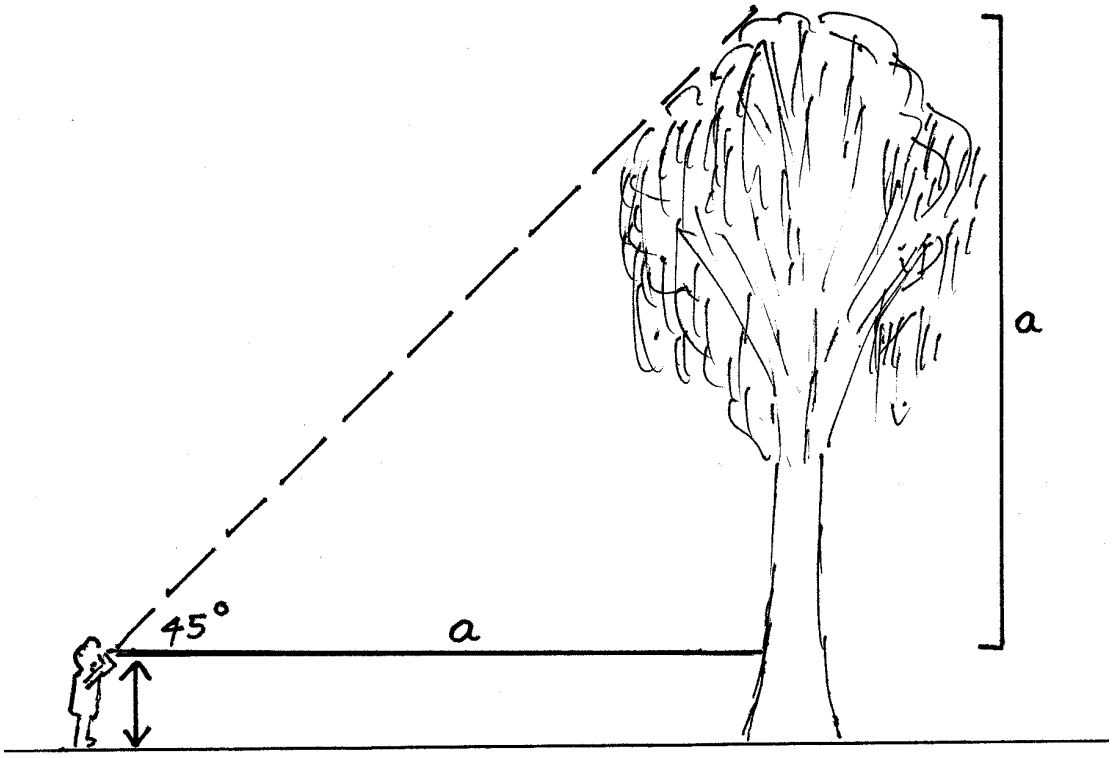
All tree measurements must be in metres.

Photographing Trees

Any recent photographs that you could provide of the tree would be much appreciated. If you wish to take some photographs, you could include:

- a shot showing an overall view of the tree
- close-ups of the trunk and any branching of interest
- an overall shot including a structure or person next to tree, can assist in establishing the size of tree; particularly if the measurements of the structure or person are provided
- photographs of the tree in different seasons are welcome.

Any photographs and information provided will be added to the National Trust's file on the tree.



In measuring tree height, using this system, the height of the tree is the distance “a” measured from the base of the tree plus the height to the eye of the measurer.