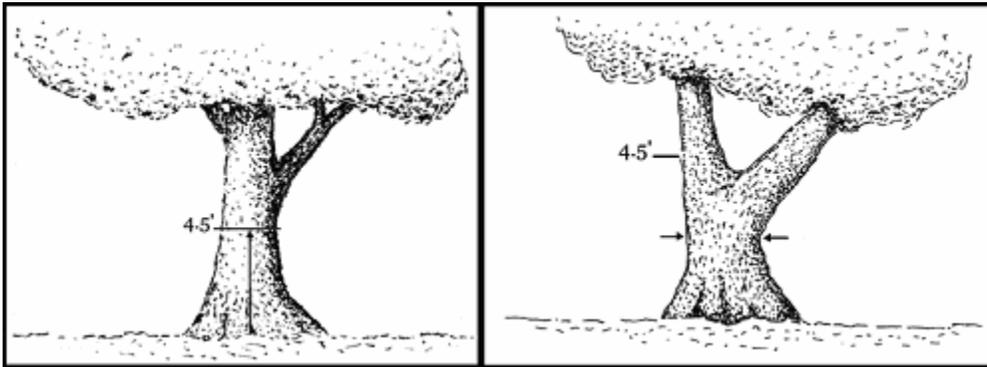# How to Measure a Big Tree

- **Circumference:** Measure around the trunk of the tree at 4 ½ feet above the ground on the tree's uphill side. If the tree forks below or bulges at 4 ½ feet, measure the circumference where the tree reaches normal size or tapers below the 4 -1/2 foot point. For accurate measurement, use a diameter tape or regular tape measure.

- **Height:** Measure the height from the ground level to the highest point. You can measure height with such instruments as a clinometer, hypsometer or abney, or by comparing the tree to something of known height, such as 25-foot building. The American Forests recommends another simple method:


approximate height of tree
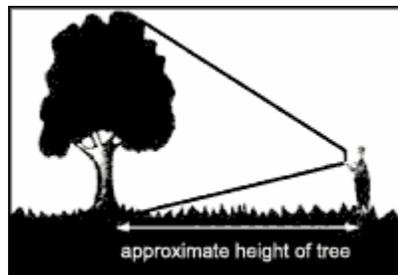
  - Hold a straight stick at its base vertically at arm's length
  - The stick's length above your hand should equal the distance from your hand to your eye.
  - Walk back from the tree, staying level to the tree's base.
  - Stop when the stick above your hand is the same length as the tree.
  - Sign over your hand to the base of the tree, and sight over the stick to the top of the tree.
  - Measure how far you've moved from the tree. The measurement, in feet, is the tree's height.

  The Indiana Division of Forestry recommends another method of measuring tree height.
  - Temporarily mark a spot 4 fee from the base of the tree to serve as a sighting point

- Back away from the tree, holding a yardstick vertically in front of you. It must be straight for an accurate measurement
- Stop when the 4-foot section of the tree occupies exactly 1 inch of the yardstick.
- Sight to the base and the top of the tree, noting the number of inches the entire tree height occupies.
- Multiply that number by 4 feet to determine the total tree height.

- **Crown Spread**
  To find the tree's average crown spread, measure the widest point and the narrowest point of the crown. Add them together and divide by two to calculate the average crown spread.
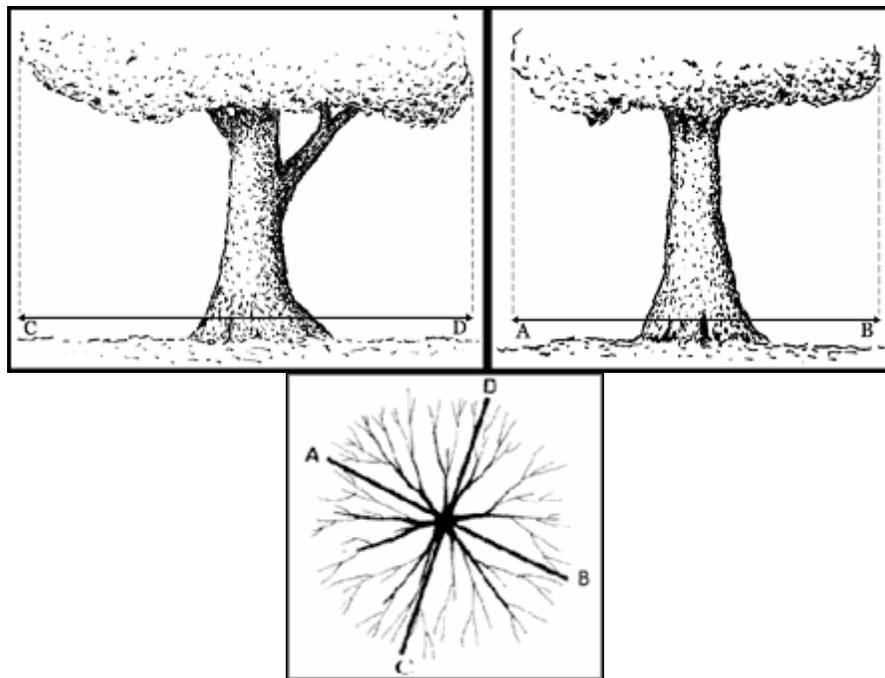
The Oakland Register of Big Trees uses American Forest's formula to determine whether a tree is a champion:

Trunk circumference in inches
+ Height in feet
+ ¼ of the crown spread in feet
= Total Points

When two trees are within 10 points of each other, they are co-champions

Nominate Your Big Tree Now!